DOE–EM/GJ1541

Office of Environmental Management – Grand Junction

UMTRA Project

Moab UMTRA Project
Ten-Year Site Plan FYs 2014-2023

Revision 5

May 2013

U.S. Department of Energy

Office of Environmental Management

Prepared by the Technical Assistance Contractor under contract number DE-EM0002067
and the Remedial Action Contractor Contractor under contract number DE-DT0002936
for the U.S. Department of Energy Office of Environmental Management, Grand Junction, Colorado.

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Review and Approval

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Revision History

Revision No.	Date	Reason/Basis for Revision
0	May 2008	Initial issue.
1	May 2009	Annual update.
2	May 2010	Annual update.
3	May 2011	Annual update.
4	May 2012	Annual update.
5	May 2013	Annual update.

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Executive Summary

This Ten-Year Site Plan (TYSP) is the foundation of the strategic planning at the sites, facilities, and office areas used for the Moab Uranium Mill Tailings Remedial Action (UMTRA) Project. The TYSP integrates technical requirements, performance measures, budget, and cost projections within a 10-year window of the Office of Environmental Management (EM) Program in compliance with U.S. Department of Energy (DOE) Order (O) 430.1B, Change 2, "Real Property Asset Management." This plan was prepared and formatted in accordance with "FY2013 Guidance for FY2014–2023 Ten-Year Site Plans" provided by EM.

Site Overview

The Moab site is a former uranium ore-processing facility located about 3 miles northwest of Moab in Grand County, Utah. A tailings pile is located in an unlined impoundment in the western portion of the site that reaches 94 feet at its highest point above surrounding ground (elevation 4,076 feet) and is about 750 feet from the western bank of the Colorado River.

The Moab site was a "Uranium Mill Tailings Radiation Control Act of 1978" (UMTRCA) (42 United States Code [USC] 7901) Title II site licensed by the U.S. Nuclear Regulatory Commission (NRC). With the enactment of the "Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001" (Public Law 106-398), Congress changed the designation to an UMTRCA Title I site and mandated that it be remediated by DOE. On October 25, 2001, DOE assumed ownership of the Moab site. The DOE EM office in Grand Junction, Colorado, is responsible for reclamation and stewardship of the site. To fulfill these responsibilities, DOE established the Moab UMTRA Project. This plan includes activities conducted at either the Moab site or the Crescent Junction disposal site.

The Moab Project mission is to relocate the approximately 16 million tons of uranium mill tailings and other contaminated materials known as residual radioactive material (RRM) at the Moab site to the Crescent Junction site 30 miles north, also in Grand County, for permanent disposal. In addition, the Project will actively remediate ground water at the Moab site, assess vicinity properties in Moab and remediate those with contamination that exceeds established criteria. DOE awarded a Remedial Action Contract (RAC) and a Technical Assistance Contract (TAC) to perform the Project scope.

Ground water in the shallow alluvium at the Moab site was contaminated by milling operations. Ammonia and uranium are the primary contaminants of concern. To protect the Colorado River, ground water is extracted through eight wells installed close to the toe of the tailings pile. Extracted water is pumped to a lined evaporation pond installed on top of the pile. When suitable habitat areas form, freshwater is introduced to the backwater channel of the river to reduce ammonia concentrations. In addition, freshwater is injected in up to 34 wells directly upgradient of the habitat areas. The extraction and injection activities are associated with an interim action system.

During fiscal years (FYs) 2014 through 2023, the site infrastructure will include facilities such as trailers or prefabricated, relocatable buildings, and their supporting utilities. The utilities supporting these facilities include heating, ventilating, and air conditioning (HVAC) systems, water, and electricity.

The Project conducts maintenance and corrects deficiencies on all facilities to ensure they remain in a safe and reliable condition. The majority of the Moab and Crescent Junction site property assets or facilities are less than 8 years old with a Facility Information Management System (FIMS) summary condition of "excellent." As a result, very little deferred maintenance is anticipated for these sites. A site snapshot is located in Table 1.

DOE anticipates that active ground water remediation will cease concurrently with the completion of surface remediation. After completion of surface remediation, DOE plans to leave the entire Moab site in a park-like setting; however, the future use of the site will be based in part on institutional controls yet to be established for the site.

There are no major changes from the prior year's TYSP.

Table 1. Site Snapshot

Active Footprint (current) sq. mi	2.99
Projected Footprint (2023) sq. mi	2.99
Number of Active* Facilities 2012 (B and T)	25
Number of Active Facilities 2013 (B and T)	25
Projected Active Facilities in 2023 (B and T)	25
GSF 2012 (B)	32,497
GSF 2013 (B)	32,497
Projected GSF (B) in 2023	32,497
Current RPV (active facilities only) in $	28,901,000
Projected RPV in 2023 (active facilities only) in $	29,152,000
Current Federal Workforce (by Field Office and PSO)	4
Current Contractor Workforce (by Field Office and PSO)	140

B = buildings; GSF = gross square feet; mi = miles; PSO = Program Secretarial Office; RPV = replacement-plant value; sq = square; T= trailers
*Active facilities are those with a FIMS status of Operating, Operational Standby, or Operating, Pending, Deactivation, and Decommissioning (facility required for current and ongoing mission needs).

General Site-planning Assumptions

Assumptions about the Project during this TYSP period are as follows:

- Currently, RRM shipping operations are on a schedule of one shift per day, 4 days per week. Up to 140 filled RRM containers are shipped from Moab to Crescent Junction per shift. This same amount of empty containers is returned from Crescent Junction to Moab each shift.
- Under the RAC awarded in FY2012, 650,000 tons of tailings are required to be shipped annually.
- The current approved lifecycle baseline end date is 2025.
- Most site infrastructure components will not require replacement or modernization during this TYSP period.
- There are no facilities currently identified as excess within the period of this TYSP, as shown in Attachment E1. No footprint reductions are anticipated over this TYSP time period. Disposition activities will be described in future TYSPs as site closure approaches.

- Excavation of additional portions of the disposal cell at Crescent Junction will continue.
- The Project will identify and comply with all applicable environmental and safety and health laws and regulations at each location where operations are conducted.
- There are no significant changes anticipated to the site mission.

Cleanup Strategy

In FY2012, Project accomplishments consisted of:

- Continued operation of interim remedial action for contaminated ground water.
- Continued excavation and transport of RRM from the millsite to the disposal cell.
- Placement of more than 1 million tons of RRM into the disposal cell and construction of a portion of the cell cover. The RRM placed consisted of 1,025,408 tons under the EM base program funding, which consisted of FY2012 budget request and prior year carry over.
- Continued assessment of vicinity properties in the community surrounding the tailings pile.
- Demobilization of the existing RAC and mobilization of the new RAC.

For FY2013, Project accomplishments are planned to consist of:

- Continued operation of interim remedial action for contaminated ground water.
- Continued excavation and transport from the millsite to the disposal cell of 650,000 tons of RRM.
- Continued placement of RRM into the disposal cell.
- Continued assessment of vicinity properties in the community surrounding the tailings pile.

For FY2014 through FY2018, Project accomplishments are planned to consist of:

- Continued operation of interim remedial action for contaminated ground water.
- Continued excavation and transport from the millsite to the disposal cell of 650,000 tons of RRM per contract year.
- Continued placement of RRM into the disposal cell and construction of the cell cover.
- Continued assessment of vicinity properties in the community surrounding the tailings pile.

Under the "American Recovery and Reinvestment Act of 2009" (ARRA) (Public Law 111-5), the Project hauled more than 2.6 million tons of RRM. This shortened the life of the Project by 3 years (2028 to 2025) and saved the Project approximately $80 million based on the lifecycle baseline costs.

Management Concerns

The projected completion date of FY2025 may be impacted by funding, which is appropriated annually.

TYSP Development

Documents used in the development of this TYSP include:

- *Moab UMTRA Project 2013 Site Sustainability Plan*, Revision 3 (DOE-EM/GJ1952), November 2012.
- *Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Final Environmental Impact Statement* (DOE/EIS-0355), July 2005.

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1.0 Site Description

1.1 General Description

The Moab site is a former uranium ore-processing facility located about 3 miles northwest of Moab in Grand County, Utah, and lies on the western bank of the Colorado River.

The Moab site is irregularly shaped and encompasses approximately 480 acres of DOE-owned land; a 130-acre uranium mill tailings pile occupies much of the western portion. Sandstone cliffs border the site on the north, west, and southwest. The Colorado River forms the southeastern boundary of the site. U.S. Highway 191 parallels the northern site boundary, and State Route 279 crosses the western portion of the site. The entrance to Arches National Park is located less than 1 mile northwest of the site across U.S. Highway 191.

The Union Pacific Railroad traverses a small section of the site on a hillside just west of State Route 279, then enters a tunnel and emerges several miles to the southwest. The Moab Wash runs northwest to southeast through the center of the site and joins with the Colorado River. The Moab Wash is an intermittent stream that flows only after significant precipitation. The eastern portion of the site lies within the Moab Wash and the Colorado River 100-year floodplain. The Moab site lies directly across the Colorado River from the Scott M. Matheson Wetlands Preserve.

Facilities and infrastructure at the Moab site include:

- Trailers and a prefabricated relocatable building that provide office space, restrooms, showers, break rooms, radiological access control, a conference area, maintenance space, and a constructed warehouse providing a site total of 45,049 gross square feet (GSF). The warehouse is an original site building that has been sufficiently documented to meet National Register of Historic Places criteria and is slated for future demolition.
- Eight wells used for extracting contaminated ground water and 34 wells used for injecting freshwater (diverted river water), in addition to various monitoring wells, a sand-filter shed, an infiltration trench, and a water truck-fill station.
- An evaporation pond located on top of the tailings pile. Forced-air evaporators spray water from the ground water extraction wells over the evaporation pond.
- A freshwater retention pond and four associated wet wells.
- A decontamination pad to scan vehicles and equipment for contamination and wash when necessary before they leave the site.
- A lidding structure.
- Roads and rail load-out area.
- Fencing.
- Underpass.
- Container rinse system.
- HVAC systems, water, and electricity.

The Crescent Junction site is located northeast of the junction of Interstate Highway 70 and U.S. Highway 191, approximately 30 miles north of the Moab site. DOE selected the Crescent Junction site for permanent disposal of RRM from the Moab site and vicinity properties.

Through a series of temporary withdrawals of public domain land and a permanent land transfer by the Department of the Interior (DOI), DOE currently owns 500 acres of land and has another 936 acres in a 20-year withdrawal near Crescent Junction for the disposal cell and surrounding buffer area, the Support Area, access road, and ancillary facilities.

The Crescent Junction site includes:

- Trailers that provide office space, restrooms, a break room, a conference area, vehicle maintenance space, and two prefabricated relocatable buildings, totaling 10,616 GSF.
- Roads and rail load-out area.
- Three sediment ponds.
- Construction waterline, pump stations, and storage pond.
- Disposal cell.
- Fencing.
- HVAC systems, water, and electricity.

Facilities infrastructure located in Grand Junction, Colorado, includes the following:

- 8,387 GSF DOE-leased office space occupied by DOE and TAC personnel.
- 1,030 GSF RAC-leased office space occupied by RAC personnel.

The asset-utilization index (AUI) on operational buildings owned by DOE, which includes facilities such as trailers and a prefabricated, relocatable building, is 100 percent for the Moab site, except for the original site building that is only partially in use as a warehouse, vehicle maintenance bay, and soils laboratory, and has an AUI of 30.62. The AUI is 100 percent for the Crescent Junction site, meeting Federal Real Property Council (FRPC) and Office of Procurement and Acquisition Management (OPAM) guidelines (see Attachment B).

Figure 1 shows the locations of the Moab site and Crescent Junction disposal site relative to Moab and other geographical locations.

As of March 1, 2013, current contractor employment on the Project totals 140 people.

1.2 Current Mission and Programs

The current Project mission is to relocate approximately 16 million tons of RRM at the Moab site to the Crescent Junction site for permanent disposal, actively remediate ground water at the Moab site, and assess vicinity properties in Moab and remediate those with contamination that exceeds established criteria.

For FY2014 through FY2023, Project accomplishments are planned to consist of:

- Continued operation of interim remedial action for contaminated ground water.
- Continued excavation and transport of RRM from the millsite to the disposal cell.
- Continued placement of RRM into the disposal cell and construction of the cell cover.
- Continued assessment of vicinity properties in the community surrounding the Moab site.

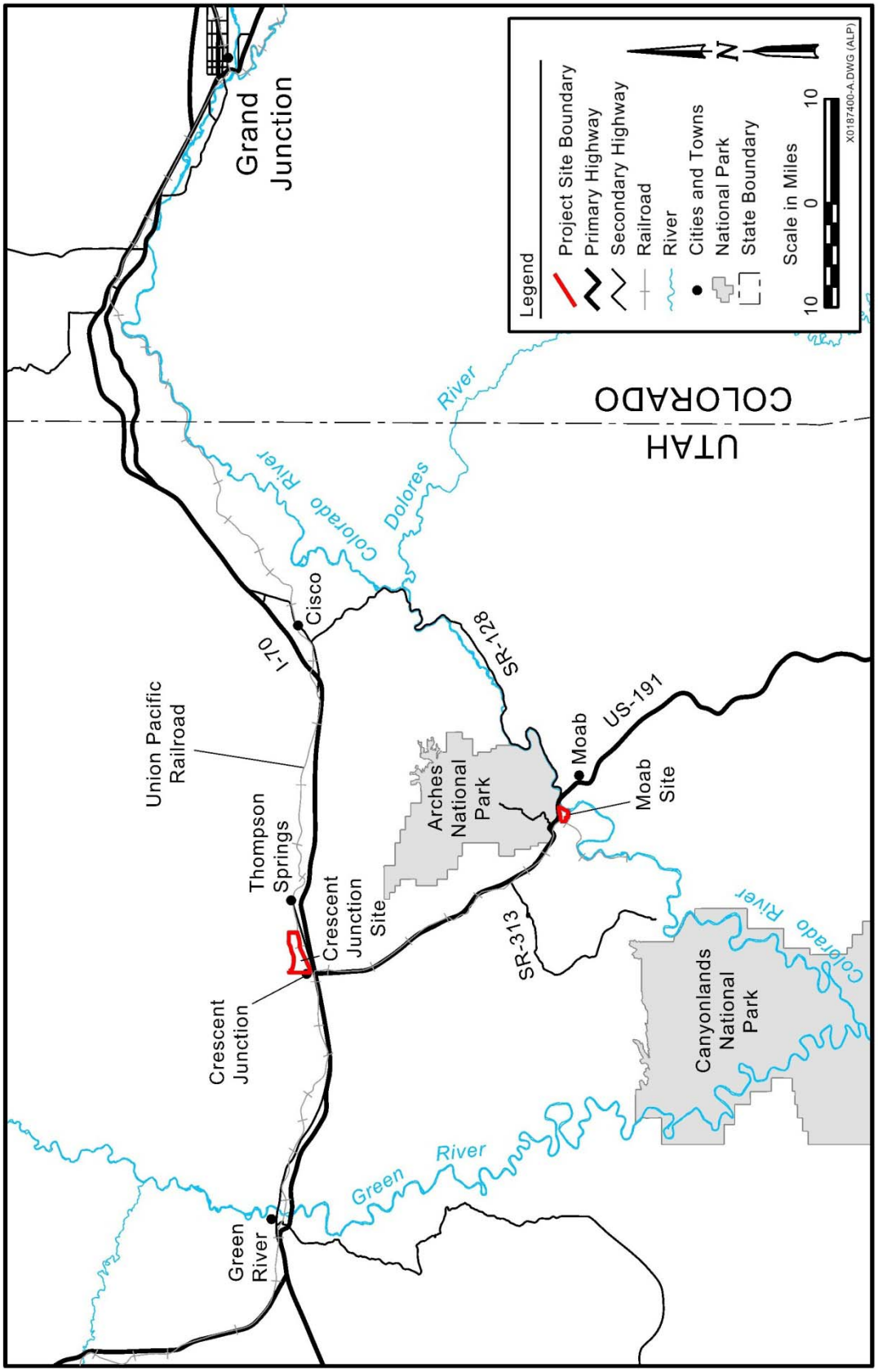


Figure 1. Location of Moab Site and Crescent Junction Disposal Site

1.3 Current Status

As of March 2013, DOE has relocated more than 5.7 million tons of RRM for permanent disposal. In addition to relocating RRM, DOE conducts ongoing site operations and maintenance activities and continues to conduct interim action ground water cleanup.

There are no deactivation and decommissioning activities for the facilities infrastructure scheduled during this TYSP time period. Over the same time period, no current or future facility deficiencies have been identified.

1.4 Changes from Prior Year TYSP

Two used trailers were purchased by DOE as a part of contract transition between the old and the new RAC, resulting in the reporting of an additional 2,352 GSF.

2.0 Site Facilities and Infrastructure Planning Requirements, Assumptions, and Targets

2.1 General Site-planning Assumptions

Assumptions about the Project during this TYSP period are as follows:

- Currently, RRM shipping operations are on a schedule of one shift per day, 4 days per week. Up to 140 filled RRM containers are shipped from Moab to Crescent Junction per shift. This same amount of empty containers is returned from Crescent Junction to Moab each shift.
- Under the RAC awarded in FY2012, 650,000 tons of tailings are required to be shipped annually.
- Site shipping operations from FY2014 through FY2023 are anticipated to be on a comparable schedule, but the number of train shipments per week and number of containers per train will depend on available annual funding.
- The projected completion date of FY2025 may be impacted by funding, which is appropriated annually. Most site infrastructure components will not require replacement or modernization during FY2014 through FY2023.
- There are no facilities currently identified as excess within the period of this TYSP, as shown in Attachment E1. No footprint reductions are anticipated during this TYSP time period. Disposition activities will be described in future TYSPs as site closure approaches.
- Excavation of additional portions of the disposal cell at Crescent Junction will continue.
- The Project will identify and comply with all applicable environmental and safety and health laws and regulations at each location where operations are conducted.

2.2 Planning Process

The Project lifecycle baseline that includes the Contract Performance Baselines (CPBs) per the DOE "EM Operations Activities Protocol, ETTP K-27 Program Implementation," was completed in November 2012. The lifecycle baseline includes a risk-management plan to identify and quantify DOE risks through the Project lifecycle.

In FY2010, the Project was determined to be an Operating project rather than a Capital Asset project. No major construction is planned for FY2014 through FY2023.

Cost projection spreadsheets are included in Attachment A; however, Attachments A1 and A2 in the EM guidance for this TYSP do not apply to Operating projects. Attachment A3 is for Operating-funded projects, but only identifies institutional general plant projects (IGPPs) and general plant projects (GPPs), not an Operating project like the Moab Project. There are no non-EM facilities and infrastructure costs associated with this Project, as identified in Attachment A4.

The Project uses an integrated work plan system to ensure operations and maintenance are performed safely, regulatory requirements are met, and necessary resources are available. This process utilizes subject matter experts and work-team reviews to verify work plans are in compliance with the Project's overall plan. This integration includes DOE, RAC, and TAC personnel as appropriate for each component.

Reductions to the annual EM budget would likely extend the Project's completion schedule, while facilities and infrastructure at the two sites would be maintained over a longer period of time than planned.

2.3 Mission-critical and Mission-dependent Facilities and Infrastructure/Linkages Between Facilities and Infrastructure and Mission Needs

The mission-critical facilities and infrastructure for the Project have been identified and are detailed in Attachment D. No current mission-critical facilities or infrastructure are planned to be phased out during the period of this TYSP. The list of mission-critical facilities is consistent with the EM definition. A summary of these mission-critical facilities follows.

The Moab site construction water-supply system currently consists of river pumps, wells, a retention pond, a sand-filter shed, an infiltration trench, a water truck-fill station, and an evaporation pond on the tailings pile.

Potable water at the Moab site is trucked in and stored in plastic water tanks and distributed via a booster pump in waterlines to the trailers. The system was not sized to provide fire protection. Potable water at the Crescent Junction site is piped from Thompson Springs, Utah, through more than 33,000 feet of pipe.

The electrical distribution systems that supply power to both the Moab and Crescent Junction sites include poles, lights, conduit, lines, and junction boxes. Minor upgrades will be performed on an as-needed basis as part of the daily site operations.

Access roads for both sites must be maintained in good condition as they provide the only approved local access routes to the sites. Haul roads at both sites must be maintained in good condition to ensure transportation of RRM is unimpeded.

An underpass of State Route 279 was constructed in 2009 to enable Project vehicles to travel to and from the rail load-out area without interacting with public traffic. A decontamination pad located near the Moab site entrance is used to decontaminate equipment or vehicles before leaving the site Contamination Area.

In the lidding structure, a metal lid is locked in place on each container filled with RRM to ensure containment of the material being transported between the Moab and Crescent Junction sites.

The Crescent Junction disposal cell where the RRM is deposited is engineered for 200 years up to a 1,000-year lifespan.

Mission-dependent facilities, such as the office trailers, trailer-staging areas, container rinse system, and maintenance structures perform an important support role in completing the Project mission. The Crescent Junction site construction water-supply system consists of a 21-mile pipeline and associated pumping stations that transport water from the Green River to a retention pond that gravity feeds a water truck-fill station.

2.4 Impacts of Non-EM Programs

No non-EM mission has been identified for these sites.

2.5 Future EM Mission, Programs, Workload, and Impacts

No future EM mission, programs, or workload have been identified for these sites.

2.6 Future Non-EM Mission, Programs, Workload, and Impacts

Responsibility for long-term stewardship of the Moab site ground water remediation system and the Crescent Junction site will transfer to the DOE Office of Legacy Management (LM) on completion of the disposal cell by EM. The current approved lifecycle baseline Project end date is FY2025.

3.0 Real Property Asset Management

3.1 Financial Planning

In FY2010, the Project was determined to be an Operating project rather than a Capital Asset project. A new Project baseline was completed in November 2012. The CPB for the RAC is through FY2016, the CPB for the TAC is through FY2017, and the lifecycle baseline is through FY2025.

In addition to EM Base Program funds, the project received ARRA funding in FY2009. It was utilized in FY2009 through FY2011. Annual funding now consists entirely of EM Base Program funds.

In FY2012, EM Program funds for the Project totaled $30 million (Figure 2). In FY2013, EM Program funds totaled $30.9 million. The President's FY2014 budget request for the Project is currently being determined. For the remaining period of this TYSP, funding is appropriated annually.

The Project uses an integrated work-plan system to ensure the operations and maintenance are performed safely, regulatory requirements are met, and necessary resources are available. However, reductions to the annual EM budget would likely extend the Project's completion schedule, while facilities and infrastructure at the two sites would be maintained over a longer period of time than planned.

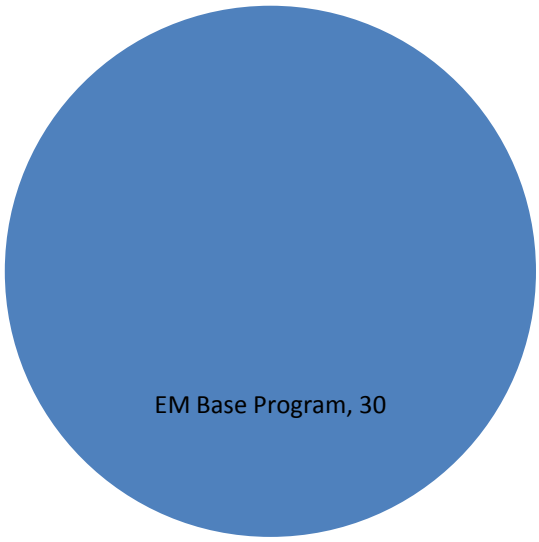


Figure 2. FY2012 Funding by Source (Cost Data in $ Millions)

3.2 Facilities and Infrastructure Overview

Facilities and infrastructure at the Moab site is comprised of:

- Trailers and relocatable buildings that provide office space, restrooms, showers, break rooms, radiological access control, conference area, maintenance space, and a constructed warehouse, for a site total of 45,049 GSF.
- Eight wells used for extracting contaminated ground water and 34 wells used for injecting freshwater (diverted river water), in addition to various monitoring wells, a sand-filter shed, an infiltration trench, and a water truck-fill station.
- An evaporation pond located on top of the tailings pile. Forced-air evaporators spray water from the ground water extraction wells over the evaporation pond.
- A freshwater retention pond and four associated wet wells.
- A decontamination pad to scan vehicles and equipment for contamination and wash when necessary before they leave the site.
- A container rinse system.
- A lidding structure.
- Roads and rail load-out area.
- Fencing.
- Underpass.
- HVAC systems, water, and electricity.

The Crescent Junction site includes:

- Trailers and a relocatable building that provide office space, restrooms, a break room, a conference area, and vehicle maintenance space, for a site total of 10,616 GSF.
- Roads and rail load-out area.
- Three sediment ponds.
- Construction waterline, settling pond, pump stations, and storage pond.
- Disposal cell.
- Fencing.
- HVAC systems, water, and electricity.

Facilities infrastructure located in Grand Junction includes:

- 8,387 GSF DOE-leased office space occupied by DOE and TAC personnel.
- 1,030 GSF RAC-leased office space occupied by RAC personnel.

3.3 Real Property Asset Management

To comply with DOE O 430.1B, all real property assets must be reported in the FIMS. Buildings, trailers, and other structures and facilities data are included in annual validations to ensure data being reported in the FIMS is accurate and complete.

3.3.1 Condition-assessment Survey

During FY2014 through FY2023, the majority of site infrastructure will include facilities such as trailers or prefabricated, relocatable buildings and their supporting utilities. The utilities supporting these facilities include HVAC systems, water, and electricity. The Project conducts maintenance on all facilities to ensure they remain in a safe and reliable condition. Site workers and safety personnel conduct facility walkdowns to verify this status and to ensure deficiencies are corrected. The RAC identified facility managers for these facilities. The facility managers (i.e., Operations/Site Managers) verify that the maintenance at their sites is current, track expenditures against this maintenance, and keep a record of repairs.

The Project does not utilize the DOE Condition Assessment Information System due to the costs associated with maintaining that system. Instead, condition assessment information is updated and maintained in the Moab site and Crescent Junction disposal site condition assessment survey documents. These documents were developed by a third party who performed a complete condition assessment for both sites in FY2010. Subsequent assessments have been conducted by Project staff to document current condition and deferred maintenance information for all facilities.

Condition assessment information is reported in the FIMS. The majority of the Moab and Crescent Junction site infrastructure is mission-dependent and is less than 8 years old, with a FIMS condition of "excellent" (see Attachment D).

3.3.2 Deferred Maintenance and Asset Condition Index

The current state of the facility and infrastructure is generally rated as excellent using the FIMS criteria. Because the bulk of infrastructure construction occurred from 2006 to 2009, major deferred maintenance requirements are not anticipated, as reported in Attachment C. The asset condition index (ACI) for assets at both sites exceeds the metrics established by the FRPC (see Attachment B).

The majority of the deferred maintenance is for an original warehouse building that was identified during a formal site condition assessment performed in February 2010. Although the condition assessment identified $330,000 worth of deferred maintenance for the site building, based on the limited use of the building, Project management decided not to expend the dollars identified against that asset as it was not in the best interest of the Project at that time. Other deferred maintenance identified as a result of condition assessments will be addressed.

3.3.3 Utilization

The Moab and Crescent Junction facilities are used to support the EM mission. All facilities at the Moab and the Crescent Junction sites have an AUI of 100 percent, meeting FRPC and OPAM guidelines (see Attachment B), except for the original site building that is only partially in use as a warehouse, a vehicle maintenance bay, and a soils laboratory, and has an AUI of 30.62. Facilities are or will be used as office space, access control into the Contamination Area, maintenance, storage, restrooms, and meeting/break area space. Existing facilities were placed based on the Project's determination of where best to locate the facilities for worker and vehicle or equipment access.

Facilities and facility space can only be relocated or used for a different purpose when approved by the appropriate contractor facility manager.

3.3.4 Land-use Planning

The Moab site is a former uranium ore-processing facility located about 3 miles northwest of Moab in Grand County, and lies on the western bank of the Colorado River. The site is irregularly shaped and encompasses approximately 480 acres of DOE-owned land. At the Moab site, DOE has out-grants for electric, natural gas, and fiber optic utilities, as well as U.S. Highway 191, State Route 279, and the railroad. In addition, DOE has in-grants for air-monitoring stations and a portion of the haul road and underpass, and the RAC has an in-grant for the rail load-out area.

Through a series of temporary withdrawals of public domain land and a permanent land transfer by the DOI, DOE currently owns 500 acres of land and has another 936 acres in a 20-year withdrawal near Crescent Junction for the disposal cell and surrounding buffer area, the Support Area, access road, and ancillary facilities.

At the Crescent Junction site, there is a perpetual easement for an access road approximately 4 miles long. In addition, DOE has multiple in-grants for the construction and potable water lines, power and telephone lines, and air-monitoring stations.

DOE completed the "National Environmental Policy Act" (NEPA) (42 USC 4321) review process early in the planning and decision-making stages for activities that had the potential to negatively affect the environment at either site. After a project or activity begins, it is continually evaluated to ensure negative environmental impacts do not occur. Significant new work scope, changes to work scope, newly proposed actions, and changes to the scope of actions will require further NEPA review. No action will be initiated until the appropriate levels of NEPA review, determination, documentation, and approval are completed.

A public bike and pedestrian trail was established on a portion of the Moab site along the Colorado River. DOE continues to evaluate the viability of public access to the site via this trail.

DOE anticipates that active ground water remediation will cease concurrently with the completion of surface remediation. After completion of surface remediation, DOE plans to leave the Moab site in a park-like setting with long-term monitoring of the ground water managed by LM; however, the future use of the site will be based in part on institutional controls yet to be established for the site.

Land use planning will consider input from other federal agencies, such as the U.S. Bureau of Land Management and National Park Service, as well as the state of Utah, the city of Moab, and Grand County, Utah.

Any future land sale of the Moab site following remediation by DOE will be held in accordance with requirements under the "Floyd D. Spence National Defense Authorization Act for FY2001." Potential land sales are currently outside of this TYSP time period.

At completion of the disposal cell, EM will transfer responsibility for long-term maintenance and monitoring to LM. DOE plans to retain ownership of the Crescent Junction site in perpetuity.

3.4 Building Footprint Management

No changes are identified that will reduce or increase any building or facility footprint any time during the period covered in this TYSP. With the exception of the warehouse building at the Moab site, all facilities are currently being fully utilized and are planned to remain so throughout the period of this TYSP. A future TYSP or closure plan will address identified building footprint reductions at that time.

3.4.1 Future Space Needs

No future need for additional space has been identified during the period of this TYSP.

3.4.2 Leased Space

Since 2007, the Project has leased space in Grand Junction to house support staff. This DOE and contractor-leased space totals 9,417 GSF, making it 15 percent of the total Project space (see Attachment E4a). Leased space in Grand Junction is anticipated to remain at current levels throughout the period of this TYSP (see Attachment G).

4.0 Site Facilities and Infrastructure Management and Investment

4.1 Maintenance

The maintenance goal is to maintain DOE facilities in a safe and reliable condition to keep them operable for the life of the Project. This goal will be achieved by conducting activities in a manner that ensures the preservation, availability, and reliability of the facilities.

Insufficient levels of maintenance and repair can result in a reduction in service life and may also cause the programmatic mission to be delayed should lower funding levels be applied to facilities maintenance rather than to the mission.

The maintenance program budgets and tracks support and repairs. General site costs (e.g., electricity) are tracked by ratio for each facility on a site. Specific costs (e.g., repair to an HVAC system) are tracked against the facility where the cost was incurred (see Attachment F).

The operations and maintenance budget in the near-term baseline includes a maintenance program. This program includes assessments of each facility and identification of general maintenance and repair requirements. Preventive maintenance is anticipated to be sufficient to sustain the facilities in safe and reliable condition. Regularly scheduled maintenance and anticipated major repairs or replacement of components will occur periodically over the expected service life of the facilities to sustain them and to ensure energy efficiency is maximized through available components (e.g., energy efficient lighting, low-flow faucets). In FY2012, Project actual maintenance costs were executed at 93 percent of Project planned maintenance (projected) costs.

4.2 Recapitalization

The Project's plan for facility and infrastructure activities is tied to the priorities established in the Project's lifecycle baseline. Activities are prioritized to provide the most beneficial infrastructure revitalization opportunities consistent with EM mission requirements.

In FY2010, the Project was determined to be an Operating project rather than a Capital Asset project. Cost projection spreadsheets are included in Attachment A; however, Attachments A1 and A2 in the EM guidance for this TYSP do not apply to Operating projects. Attachment A3 is for Operating-funded projects, but only identifies IGPPs and GPPs, not an Operating project like the Moab Project.

Reductions to the annual EM budget would likely extend the Project's completion schedule, while facilities and infrastructure at the two sites would be maintained over a longer period of time than planned. This may require recapitalization-type efforts based on facility lifecycles.

4.3 Facilities and Infrastructure Investment Impacts

4.3.1 Deferred Maintenance and ACI

The current state of the facility and infrastructure is generally rated excellent using the FIMS criteria. Because the bulk of infrastructure construction occurred from 2006 to 2009, major deferred maintenance requirements are not anticipated, so the ratio of Required Maintenance to Deferred Maintenance should remain constant over the period of this TYSP as reported in Attachment C.

The majority of the deferred maintenance total cost of $379,000, reported in FY2012, was identified during a formal site condition assessment performed in February 2010 and is for an original warehouse building. Based on the limited use of the building, Project management decided not to expend the dollars identified against that asset as it was not in the best interest of the Project at that time. The remaining deferred maintenance costs of approximately $47,000 will be addressed and reduced at a constant rate over this TYSP time period.

The ACI for assets at both sites exceeds the metrics established by the FRPC.

4.3.2 Management of Shutdown Facilities

There are no shutdown facilities identified within this TYSP timeframe.

4.4 Utilities

Utilities are defined as the private or public service facilities, such as gas, electricity, telephone, water, and sewer that are provided as part of the development of the land per DOE (U.S. Department of Energy) Order 430.2B, "Departmental Energy and Utilities Management." An overview of the utilities at the Project sites is listed below.

- The Moab site construction water-supply system currently consists of river pumps, wet wells, a retention pond, and a water truck-fill station. The Crescent Junction site construction water -supply system consists of a settling pond, a 21-mile pipeline, and associated pumping stations that transport water from the Green River to a retention pond that gravity feeds to a water truck-fill station.
- Potable water for the Moab site is trucked in and stored in plastic water tanks and distributed via a booster pump in waterlines to the trailers. The system was not sized to provide fire protection. Potable water for the Crescent Junction site is piped from Thompson Springs in more than 33,000 feet of pipe.
- The electrical distribution systems at the Moab and Crescent Junction sites include poles, lights, conduit, lines, and junction boxes. No significant issues are foreseen during this TYSP time period. Minor upgrades will be performed on an as-needed basis as part of the site operations.
- A septic tank, a leach field, and collection piping to trailers were installed at both the Moab and Crescent Junction sites. No significant issues are foreseen during this TYSP time period unless work scope increases dramatically. Minor upgrades will be performed on an as-needed basis as part of the site operations.
- Although there is a natural gas pipeline that transects the Moab site, natural gas is not utilized by the Project.
- There are no central steam systems.

There have been no Energy Savings Performance Contract preliminary assessments, and there are currently no plans for such task orders or utility energy savings contracts due to the limited nature of this Project.

5.0 References

42 USC 4321 (*United States Code*), "National Environmental Policy Act."

42 USC 7901 (*United States Code*), "Uranium Mill Tailings Radiation Control Act."

DOE (U.S. Department of Energy) EM Guidance, "FY2013 Guidance for Fiscal Year 2014-2023 Ten-Year Site Plans," January 2013.

DOE (U.S. Department of Energy) "EM Operations Activities Protocol, ETTP K-27 Program Implementation," February 28, 2012.

DOE (U.S. Department of Energy), *Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Final Environmental Impact Statement* (DOE/EIS-0355), July 2005.

DOE (U.S. Department of Energy), *Moab UMTRA Project 2013 Site Sustainability Plan, Revision 3* (DOE-EM/GJ1952), November 2012.

DOE (U.S. Department of Energy) Order 430.1B, Changes 2, "Real Property Asset Management."

DOE (U.S. Department of Energy) Order 430.2B, "Departmental Energy and Utilities Management."

Public Law 106-398, "Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001."

Public Law 111-5, "American Recovery and Reinvestment Act of 2009."

Attachment A.
Facilities and Infrastructure Cost Projection Spreadsheets

Attachment A. Facilities and Infrastructure Cost Projection Spreadsheets

Moab Attachment A-1
EM Facilities and Infrastructure Cost Projection Spreadsheet - Capital Asset Construction Projects >$10 million (existing and approved)
($000s)

* Denotes Change from Prior Year TYSP	Priority (1)	Project Name (2)	Project Number (3)	Deferred Maintenance & Identifier (3a)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total For All Years (8)	Prior Year Funding (Actual) FY 2009 - 2011 (9)	PY 2012 (10)	CY FY 2013 (11)	BY 01 FY 2014 (12)	BY 02 FY 2015 (13)	BY 03 FY 2016 (14)	BY 04 FY 2017 (15)	BY 05 FY 2018 (16)	BY 06 FY 2019 (17)	BY 07 FY 2020 (18)	BY 08 FY 2021 (19)	BY 09 FY 2022 (20)	BY10 FY 2023 (21)
									CA	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									LI	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									ALT	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									OPC	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									PE&D	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									E	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									GPP	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									IGPP	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									ARRA	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
							$ -	0	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

In FY10, the Moab project was determined to be an Operating project rather than a Capital Asset project.

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas that add up cost/GSF data from other cells are shown in a light gray color

Attachment A. Facilities and Infrastructure Cost Projection Spreadsheets (continued)

Moab Attachment A-2
EM Facilities and Infrastructure Cost Projection Spreadsheet - Proposed Capital Asset Construction Project >$10 million
($000s)

* Denotes Change from Prior Year TYSP	Priority (1)	Project Name (2)	Project Number (3)	Deferred Maintenance & Identifier (3a)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total For All Years (8)	Prior Year Funding (Actual) FY 2009 - 2011 (9)	PY 2012 (10)	CY FY 2013 (11)	BY 01 FY 2014 (12)	BY 02 FY 2015 (13)	BY 03 FY 2016 (14)	BY 04 FY 2017 (15)	BY 05 FY 2018 (16)	BY 06 FY 2019 (17)	BY 07 FY 2020 (18)	BY 08 FY 2021 (19)	BY 09 FY 2022 (20)	BY10 FY 2023 (21)
									CA	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									LI	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									ALT	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									OPC	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									PE&D	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									E	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									GPP	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									IGPP	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
									ARRA	$0													
										$0													
							$0	0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
							$ -	0	Total	$ -	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

In FY10, the Moab project was determined to be an Operating project rather than a Capital Asset project. There are no proposed line item projects during this time horizon.

Data Input Cells to enter data are shown in a light blue color

Formulas Cells with formulas that add up cost/GSF data from other cells are shown in a light gray color

Attachment A. Facilities and Infrastructure Cost Projection Spreadsheets (continued)

Moab Attachment A-3
EM Facilities and Infrastructure Cost Projection Spreadsheet - Minor Construction Projects
($000s)

* Denotes Change from Prior Year TYSP	Priority (1)	Project Name (2)	Project Number (3)	Deferred Maintenance & Identifier (3a)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total For All Years (8)	Prior Year Funding (Actual) FY 2009 - 2011 (9)	PY 2012 (10)	CY FY 2013 (11)	BY 01 FY 2014 (12)	BY 02 FY 2015 (13)	BY 03 FY 2016 (14)	BY 04 FY 2017 (15)	BY 05 FY 2018 (16)	BY 06 FY 2019 (17)	BY 07 FY 2020 (18)	BY 08 FY 2021 (19)	BY 09 FY 2022 (20)	BY10 FY 2023 (21)
Institutional General Plant Projects (IGPP)																							
										$0													
										$0													
										$0													
							$ -	0	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
General Plant Projects (GPP)																							
										$0													
										$0													
										$0													
							$ -	0	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

There is no IGPP or GPP funding for this Project.

Data Input Cells to enter data are shown in a light blue color

Formulas Cells with formulas that add up cost/GSF data from other cells are shown in a light gray color

Moab Attachment A-4
Non-EM Facilities and Infrastructure Cost Projection Spreadsheet - Non-EM Minor Construction Projects
($000s)

* Denotes Change from Prior Year TYSP	Priority (1)	Project Name (2)	Project Number (3)	Deferred Maintenance & Identifier (3a)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total For All Years (8)	Prior Year Funding (Actual) FY 2009 - 2011 (9)	PY 2012 (10)	CY FY 2013 (11)	BY 01 FY 2014 (12)	BY 02 FY 2015 (13)	BY 03 FY 2016 (14)	BY 04 FY 2017 (15)	BY 05 FY 2018 (16)	BY 06 FY 2019 (17)	BY 07 FY 2020 (18)	BY 08 FY 2021 (19)	BY 09 FY 2022 (20)	BY10 FY 2023 (21)
Institutional General Plant Projects (IGPP)																							
										$0													
										$0													
										$0													
							$ -	0	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
General Plant Projects (GPP)																							
										$0													
										$0													
										$0													
							$ -	0	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

There are no Non-EM Facilities within the Moab UMTRA Project.

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas that add up cost/GSF data from other cells are shown in a light gray color

Attachment B.
Site Asset Utilization and Condition Indices

Attachment B. Site Asset Utilization and Condition Indices

FIMS 200 - FY12 Owned Infrastructure Data Snapshot

Program Office EM
Field Office EMCBC
Sites Moab Site
Year 2012

Total Bldg,Trailer,and OSF RPV ($) (Less 3000 Series OSF's)		$10,733,363.21					
Total OSF 3000 Series RPV ($)		$0.00					
Total RPV ($)		$10,733,363.21					
Total Deferred Maintenance ($)		$355,183					
Total Owned Acreage		483.11					
Site-Wide ACI (B, S, T - Excluding 3000 Series)		0.967					
OSF 3000 Series ACI							
			#Building Assets	**#Trailer Assets**	**#OSF Assets**	**GSF (Bldg)**	**GSF (Trailer)**
Asset Condition Index (B, S, T) [1]	**Mission Critical**	0.998	0	0	3	0	0
	Mission Dependent	0.954	3	14	5	27,497	17,552
	Not Mission Dependent	0.996	0	0	2	0	0
			#Building Assets	**#Trailer Assets**		**GSF (Bldg)**	**GSF (Trailer)**
Asset Utilization Index (B,T) [2,3]	**Office**	100	0	10		0	14,912
	Warehouse	30.62	2	0		22,697	0
	Laboratory		0	0		0	0
	Hospital		0	0		0	0
	Housing		0	0		0	0

B=Building; S=Structure; T= Trailers

[1] *Criteria includes DOE Owned Buildings, Trailers, and OSF's(excludes series 3000 OSF's)*
[2] *Criteria includes DOE Owned Buildings and Trailers.*
[3] *Only includes assets with usage codes that fall into these 5 FRPC categories. Other usage codes are not included.*

Attachment B. Site Asset Utilization and Condition Indices (continued)

FIMS 200 - FY12 Owned Infrastructure Data Snapshot

Program Office EM
Field Office EMCBC
Sites Crescent Junction Site
Year 2012

Total Bldg,Trailer,and OSF RPV ($) (Less 3000 Series OSF's)		$16,691,413.16					
Total OSF 3000 Series RPV ($)		$0.00					
Total RPV ($)		$16,691,413.16					
Total Deferred Maintenance ($)		$23,550					
Total Owned Acreage		1,436.00					
Site-Wide ACI (B, S, T - Excluding 3000 Series)		0.999					
OSF 3000 Series ACI							
			#Building Assets	**#Trailer Assets**	**#OSF Assets**	**GSF (Bldg)**	**GSF (Trailer)**
Asset Condition Index (B, S, T) [1]	**Mission Critical**	1	0	0	5	0	0
	Mission Dependent	0.996	2	6	5	5,000	5,616
	Not Mission Dependent	1	0	0	2	0	0
			#Building Assets	**#Trailer Assets**		**GSF (Bldg)**	**GSF (Trailer)**
Asset Utilization Index (B,T) [2,3]	**Office**	100	0	5		0	5,040
	Warehouse	100	1	0		200	0
	Laboratory		0	0		0	0
	Hospital		0	0		0	0
	Housing		0	0		0	0

B=Building; S=Structure; T= Trailers

[1] *Criteria includes DOE Owned Buildings, Trailers, and OSF's(excludes series 3000 OSF's).*
[2] *Criteria includes DOE Owned Buildings and Trailers.*
[3] *Only includes assets with usage codes that fall into these 5 FRPC categories. Other usage codes are not included.*

Attachment C.
Site Total Deferred Maintenance and Asset Condition Index

Attachment C. Site Total Deferred Maintenance and Asset Condition Index

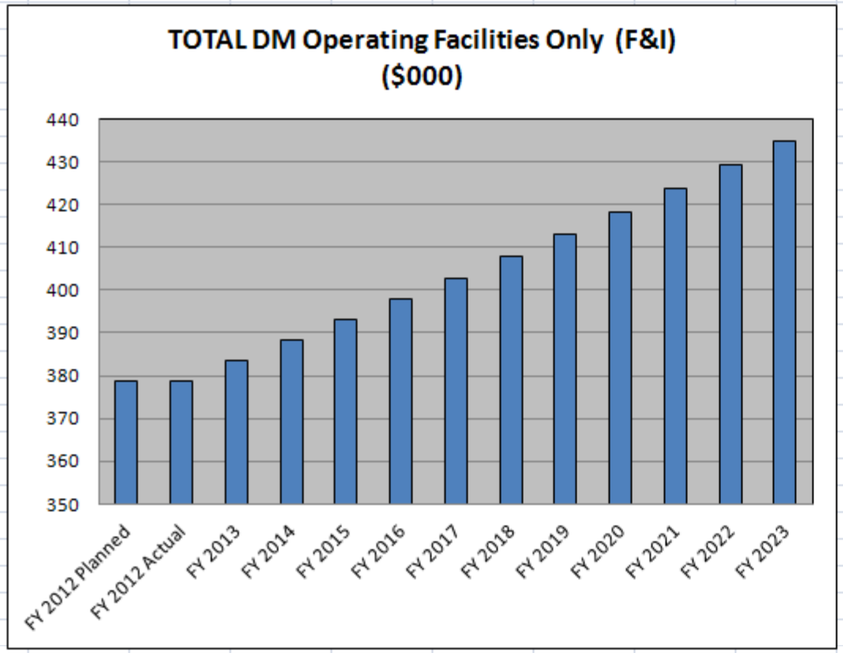
Attachment C1
EM - Total Deferred Maintenance and Asset Condition Index
($000s)

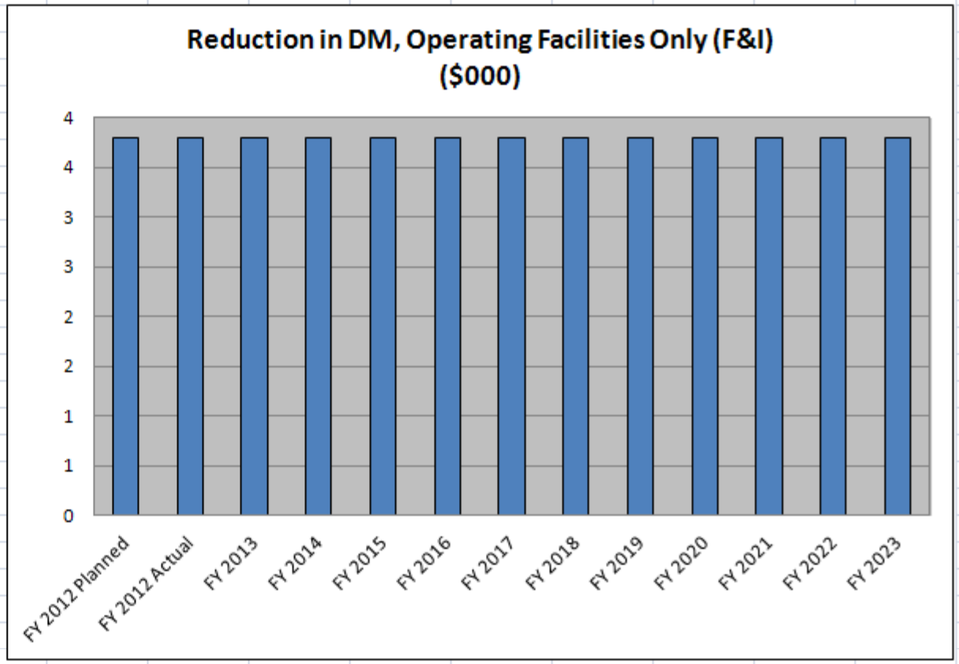
	Category of Maintenance	FY 2012 Planned	FY 2012 Actual	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	REQUIRED MAINTENANCE (OPERATING FACILITIES ONLY)													
(1)	ANNUAL *REQUIRED* MAINTENANCE TOTAL	$ 267	$ 249	$ 211	$ 195	$ 198	$ 259	$ 214	$ 221	$ 225	$ 223	$ 244	$ 258	$ 248
	PLANNED MAINTENANCE (OPERATINGFACILITIES ONLY)													
(2a)	a. Annual Direct	$ 267	$ 249	$ 211	$ 195	$ 198	$ 259	$ 214	$ 221	$ 225	$ 223	$ 244	$ 258	$ 248
(2b)	b. Annual Indirect													
(2)	ANNUAL *PLANNED* MAINTENANCE TOTAL	$ 267	$ 249	$ 211	$ 195	$ 198	$ 259	$ 214	$ 221	$ 225	$ 223	$ 244	$ 258	$ 248
	TOTAL DEFERRED MAINTENANCE (OPERATING FACILITIES ONLY)													
(3a)	i. Backlog Inflation Rate (%)	2.6%	2.5%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
(3b)	ii. DM Inflation			$ 9	$ 8	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9
(3c)	iii. DM NEW													
(3d)	IV. DM REDUCTION TOT(from row (4)		$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4
(3)	DEFERRED MAINTENANCE (DM) - TOTAL	$ 379	$ 379	$ 384	$ 388	$ 393	$ 398	$ 403	$ 408	$ 413	$ 418	$ 424	$ 429	$ 435
	DEFERRED MAINTENANCE REDUCTION (OPERATING FACILITIES ONLY)													
(4)	Reduction in DM, Operating Facilities, F&I ONLY	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80	$ 3.80
	REPLACEMENT PLANT VALUE (RPV) (OPERATING FACILITIES ONLY)													
(5a)	TOTAL RPV - Operating (F&I only)	$ 28,901	$ 28,901	$ 28,938	$ 28,979	$ 29,023	$ 29,071	$ 29,123	$ 29,179	$ 29,239	$ 29,302	$ 29,369	$ 29,440	$ 29,515
(5c)	RPV Increase from prior year attributed to inflation		$0	$37	$41	$44	$48	$52	$56	$60	$63	$67	$71	$75
(5d)	RPV Increase / decrease attributed to causes other than inflation (provide separate supporting narrative behind this exhibit)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

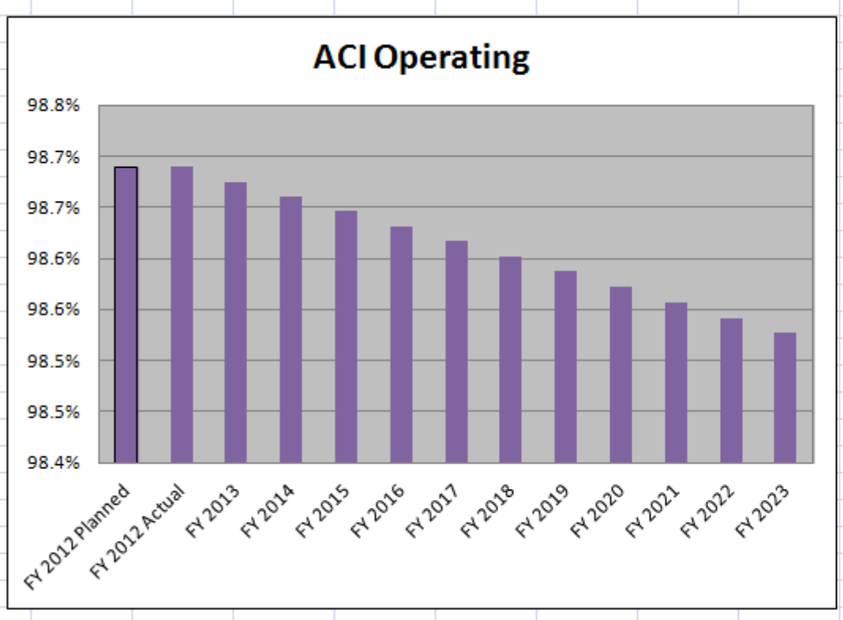
ACI Analysis	FY 2012 Planned	FY 2012 Actual	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
ACI Operating	98.7%	98.7%	98.7%	98.7%	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	98.5%	98.5%

Footnotes:

Data Input
Formulas


TOTAL DM Operating Facilities Only (F&I)
($000)
440
430
420
410
400
390
380
370
360
350
FY 2012 Planned
FY 2012 Actual
FY 2013
FY 2014
FY 2015
FY 2016
FY 2017
FY 2018
FY 2019
FY 2020
FY 2021
FY 2022
FY 2023


Reduction in DM, Operating Facilities Only (F&I)
($000)
4
4
3
3
2
2
1
1
0
FY 2012 Planned
FY 2012 Actual
FY 2013
FY 2014
FY 2015
FY 2016
FY 2017
FY 2018
FY 2019
FY 2020
FY 2021
FY 2022
FY 2023


ACI Operating
98.8%
98.7%
98.7%
98.6%
98.6%
98.5%
98.5%
98.4%
FY 2012 Planned
FY 2012 Actual
FY 2013
FY 2014
FY 2015
FY 2016
FY 2017
FY 2018
FY 2019
FY 2020
FY 2021
FY 2022
FY 2023

Attachment D.
Site Mission Facilities and Infrastructure

Attachment D. Site Mission Facilities and Infrastructure

Moab Attachment D
FY 2013 List of Mission Facilities and Infrastructure
(Taken from FIMS Database Report #092)

#	Property ID (FIMS)	Mission Dependency	Building RPV	Deferred Maintenance	Summary Condition	MD Program Office	Gross Square Ft	Utilization %
EM Facilities and Infrastructure								
Mission Critical								
						EM		
		Sub-Total	$0	$0			0	
Mission Dependent Not Critical								
1	CRJ01-LS	Mission Dependent, Not Critical	$16,591	$0	Excellent	EM	200	100
2	CRJ01-BM	Mission Dependent, Not Critical	$455,000	$8,487	Excellent	EM	4800	100
3	MOA01-LS	Mission Dependent, Not Critical	$16,591	$0	Excellent	EM	200	100
4	MOA01-BM	Mission Dependent, Not Critical	$455,000	$8,486	Excellent	EM	4800	100
5	MOA01-BA	Mission Dependent, Not Critical	$2,700,000	$332,035	Fair	EM	22497	30
						EM		
						EM		
						EM		
						EM		
						EM		
		Sub-Total	$3,643,182	$349,008			32,497	
		Total EM	$3,643,182	$349,008			32,497	
Other Program (i.e., Non-EM) Facilities and Infrastructure								
Mission Critical								
		Sub-Total	$0	$0			0	
Mission Dependent Not Critical								
		Sub-Total	$0	$0			0	
		Total Other Programs	$0	$0			0	
		Site Total						
		Mission Critical	$0	$0			-	
		Mission Dependent Not Critical	$3,643,182	$349,008			32,497	
		Total	$3,643,182	$349,008			32,497	

There are no Mission Critical buildings and no Non-EM Facilities within the Moab UMTRA Project.

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas that add up GSF data from other cells are shown in a light gray color

Attachment E.
Facilities Disposition, New Construction, and Leased Space

Attachment E. Facilities Disposition, New Construction, and Leased Space

Moab **Attachment E1**
Facilities Disposition Plan

*Denotes Change from previous year TYSP	Fiscal Year	Funding Program (1)	Property ID (FIMS) (2)	Property Name (FIMS) (2a)	Mission Dependency (3)	Gross Square Footage (GSF) (4)	FIMS Excess Indicator (5)	FIMS D&D Status Code (6)	Excess Year (6a)	Estimated Disposition Year (7)	Replacement Plant Value ($000) (8)	Total Estimated Cost (TEC) to Disposition ($000s) (9)	Annual S&M Costs ($000) (10)	Candidate for Transfer - Program Name (11)	Contaminated Facility (Y or N) (12)	Notes (13)
EM																
	2010	EM														
	2010	EM														
FY 2010						0					$0	$0	$0			
	2011	EM														
	2011	EM														
FY 2011						0					$0	$0	$0			
	2012	EM														
	2012	EM														
FY 2012						0					$0	$0	$0			
	2013	EM														
	2013	EM														
FY 2013						0					$0	$0	$0			
	2014	EM														
	2014	EM														
FY 2014						0					$0	$0	$0			
	2015	EM														
	2015	EM														
FY 2015						0					$0	$0	$0			
	2016	EM														
	2016	EM														
FY 2016						0					$0	$0	$0			
	2017	EM														
	2017	EM														
FY 2017						0					$0	$0	$0			
	2018	EM														
	2018	EM														
FY 2018						0					$0	$0	$0			
	2019	EM														
	2019	EM														
FY 2019						0					$0	$0	$0			
	2020	EM														
	2020	EM														
FY 2020						0					$0	$0	$0			
	2021	EM														
	2021	EM														
FY 2021						0					$0	$0	$0			
	2022	EM														
	2022	EM														
FY 2022						0					$0	$0	$0			
	2023	EM														
	2023	EM														
FY 2023						0					$0	$0	$0			
Non - EM																
FY 2023						0					#REF!	#REF!	#REF!			

There are

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas that add up cost/GSF data from other cells are shown in a light gray color

Attachment E. Facilities Disposition, New Construction, and Leased Space (continued)

Moab **Attachment E2**
New Construction Footprint Added

*Denotes Change from previous year TYSP	Fiscal Year	Funding Program Name (1)	Project Number (2)	Property Name (3)	Funding Type (LI, GPP, IGPP) (4)	Project Area (GSF) (5)	Year of Beneficial Occupancy (6)	LEED Certification (7)	Notes (8)
EM New									
	2010	EM							
	2010	EM							
2010 Total						0			
	2011	EM							
	2011	EM							
2011 Total						0			
*	**2012**	EM	CRJ01-TRL6	Crescent Jct, UT, Radcon Trailer		720	N/A	N/A	Trailer purchased from outgoing contractor.
*	**2012**	EM	MOA01-TRL14	Moab, UT, Queue Access Trailer		1,632	N/A	N/A	Trailer purchased from outgoing contractor.
2012 Total						2,352			
	2013	EM							
	2013	EM							
2013 Total						0			
	2014	EM							
	2014	EM							
2014 Total						0			
	2015	EM							
	2015	EM							
2015 Total						0			
	2016	EM							
	2016	EM							
2016 Total						0			
	2017	EM							
	2017	EM							
2017 Total						0			
	2018	EM							
	2018	EM							
2018 Total						0			
	2019	EM							
	2019	EM							
2019 Total						0			
	2020	EM							
	2020	EM							
2020 Total						0			
	2021	EM							
	2021	EM							
2021 Total						0			
	2022	EM							
	2022	EM							
2022 Total						0			
	2023	EM							
	2023	EM							
2023 Total						0			
					EM Site Total	2,352			
Non - EM									
Total						0			
Non-EM						0			
					Plan Total	2,352			

There are no

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas that add up GSF data from other cells are shown in a light gray color

Attachment E. Facilities Disposition, New Construction, and Leased Space (continued)

***Moab* Attachment E3**
FY 2013 Leased Space □

*Denotes change from prior years TYSP	#	Property ID (FIMS) (2)	Property Name (FIMS) (3)	Mission Dependency (4)	# Occupants (5)	Gross Square Feet (GSF) (6)	Rental Rate (cost per rentable GSF) (7)	Annual Rental Cost (8)	Lease Type (9)	Lease Term - yrs. (10)	Lease Expiration Month/Year (11)	Renewal Options (Y or N) (12)
EM Program Leased Space												
	1	GRJ01-B	Grand Junction, CO Office Space	MD	21	8,387	$ 22.12	$ 185,501.42	Full	5	Aug-15	Y
	2	GRJ01-B-RAC	Grand Junction, CO Office Space	MD	4	1,030	$ 21.50	$ 22,145.00	Full	5	Sep-16	Y
	3											
	4											
	5											
	6											
	7											
	8											
	9											
	10											
	11											
	12											
	13											
		Totals				9,417		$ 207,646.42				
Non - EM Program Leased Space												
		Totals				0		$ -				
There is no non-EM lease program space within the Moab UMTRA Project.												
Data Input	Cells to enter data are shown in a light blue color											
Formulas	Cells with formulas that add up GSF data from other cells are shown in a light gray color											

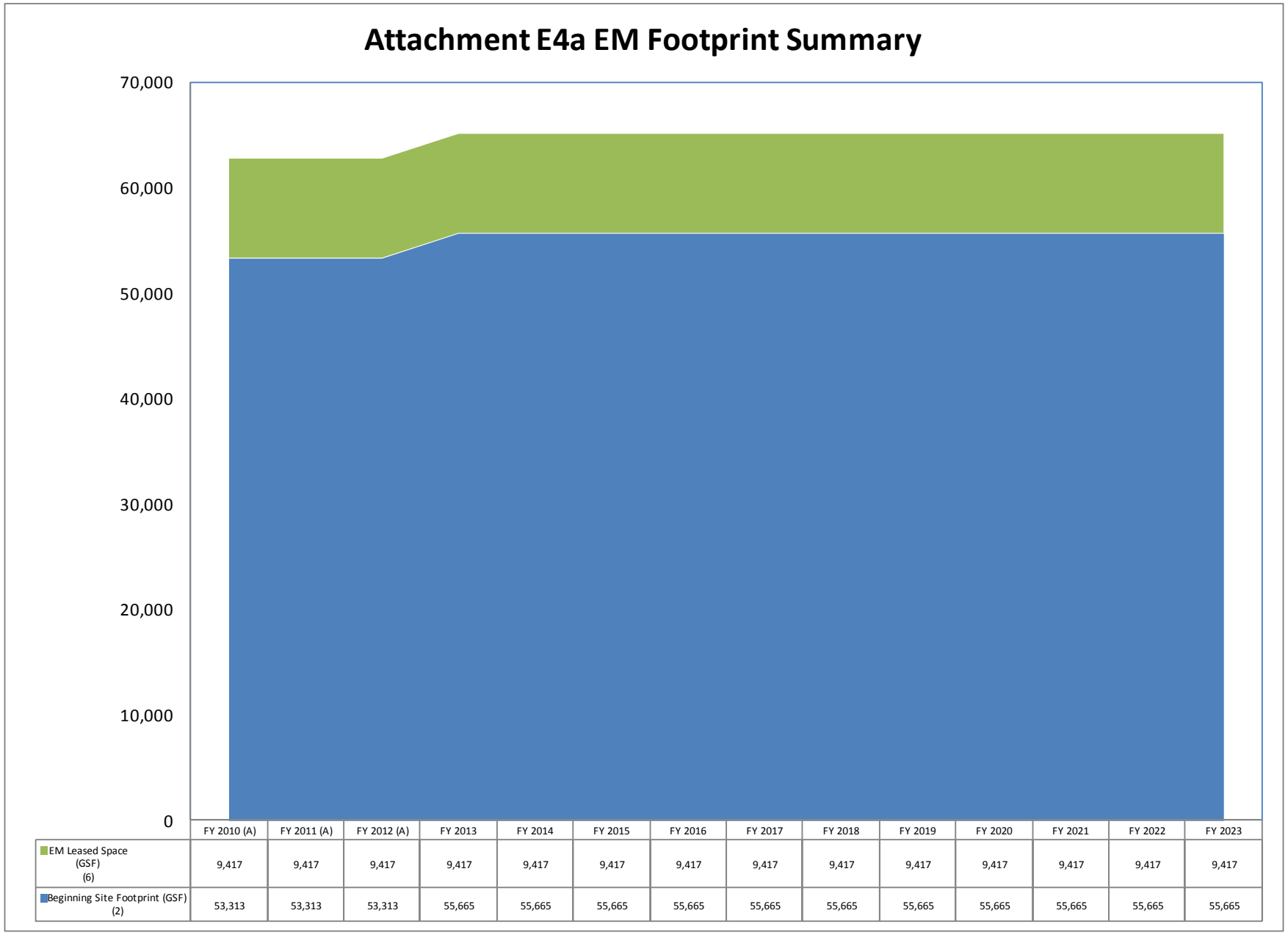
Attachment E. Facilities Disposition, New Construction, and Leased Space (continued)

Moab Attachment E4a
FOOTPRINT TRACKING SUMMARY - EM

Fiscal Year (1)	Beginning Site Footprint (GSF) (2)	Excess Facilities Footprint Elimination (GSF) (3)	New Construction/ Footprint Added (GSF) (4)	Net Year End Footprint (GSF) (5)	EM Leased Space (GSF) (6)
FY 2010 (A)	53,313	0	0	53,313	9,417
FY 2011 (A)	53,313	0	0	53,313	9,417
FY 2012 (A)	53,313	0	2,352	55,665	9,417
FY 2013	55,665	0	0	55,665	9,417
FY 2014	55,665	0	0	55,665	9,417
FY 2015	55,665	0	0	55,665	9,417
FY 2016	55,665	0	0	55,665	9,417
FY 2017	55,665	0	0	55,665	9,417
FY 2018	55,665	0	0	55,665	9,417
FY 2019	55,665	0	0	55,665	9,417
FY 2020	55,665	0	0	55,665	9,417
FY 2021	55,665	0	0	55,665	9,417
FY 2022	55,665	0	0	55,665	9,417
FY 2023	55,665	0	0	55,665	9,417

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas are shown in a light gray color

Attachment E. Facilities Disposition, New Construction, and Leased Space (continued)



	FY 2010 (A)	FY 2011 (A)	FY 2012 (A)	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
EM Leased Space (GSF) (6)	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417
Beginning Site Footprint (GSF) (2)	53,313	53,313	53,313	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665

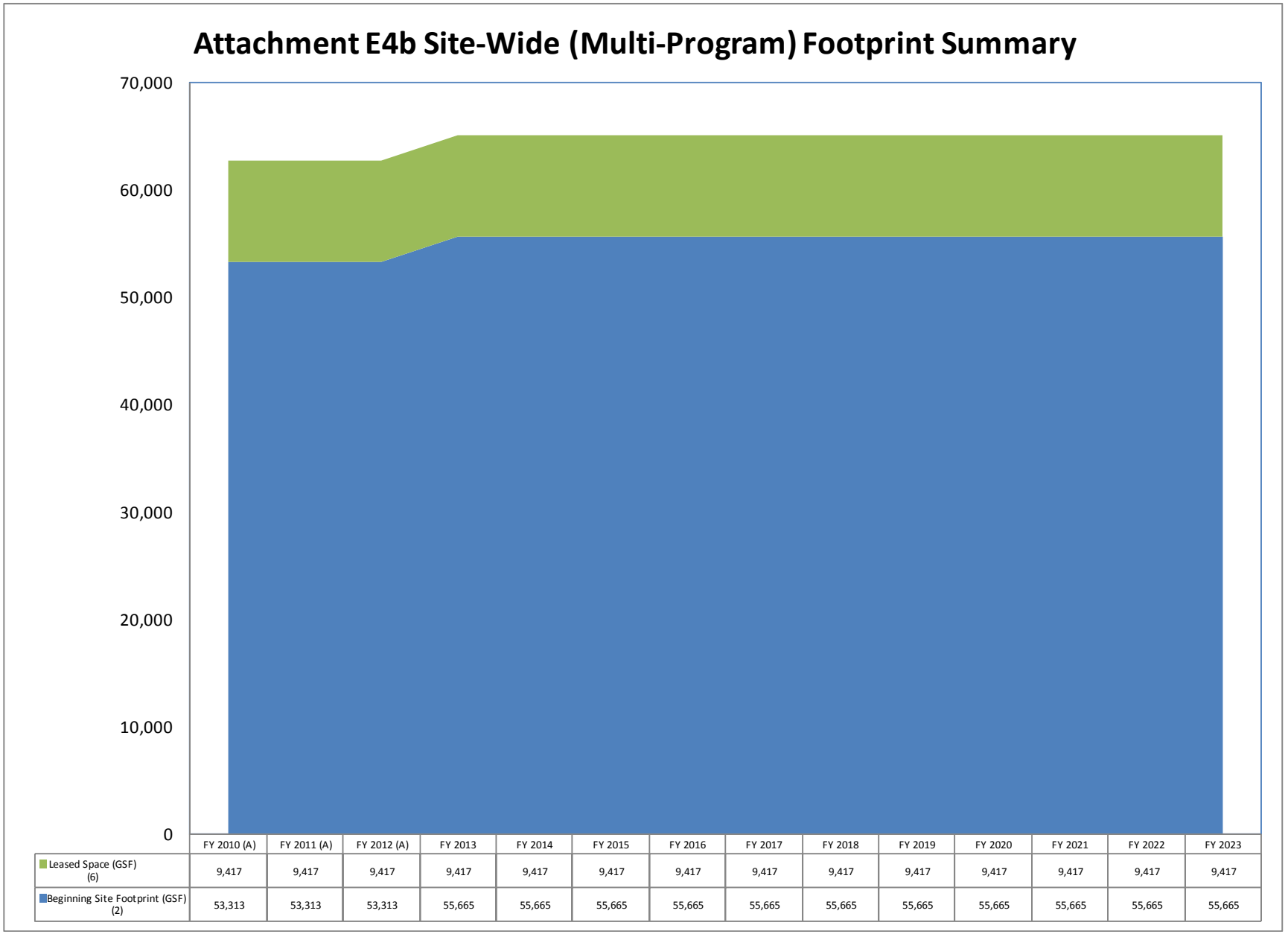
Attachment E. Facilities Disposition, New Construction, and Leased Space (continued)

Attachment E4b
FOOTPRINT TRACKING SUMMARY - SITE WIDE (Multi-Program)

Fiscal Year (1)	Beginning Site Footprint (GSF) (2)	Excess Facilities Footprint Elimination (GSF) (3)	New Construction/ Footprint Added (GSF) (4)	Net Year End Footprint (GSF) (5)	Leased Space (GSF) (6)
FY 2010 (A)	53,313	0	0	53,313	9,417
FY 2011 (A)	53,313	0	0	53,313	9,417
FY 2012 (A)	53,313	0	2,352	55,665	9,417
FY 2013	55,665	0	0	55,665	9,417
FY 2014	55,665	0	0	55,665	9,417
FY 2015	55,665	0	0	55,665	9,417
FY 2016	55,665	0	0	55,665	9,417
FY 2017	55,665	0	0	55,665	9,417
FY 2018	55,665	0	0	55,665	9,417
FY 2019	55,665	0	0	55,665	9,417
FY 2020	55,665	0	0	55,665	9,417
FY 2021	55,665	0	0	55,665	9,417
FY 2022	55,665	0	0	55,665	9,417
FY 2023	55,665	0	0	55,665	9,417

Data Input	Cells to enter data are shown in a light blue color
Formulas	Cells with formulas are shown in a light gray color

Attachment E. Facilities Disposition, New Construction, and Leased Space (continued)



	FY 2010 (A)	FY 2011 (A)	FY 2012 (A)	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Leased Space (GSF) (6)	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417	9,417
Beginning Site Footprint (GSF) (2)	53,313	53,313	53,313	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665	55,665

Attachment F.
Integrated Facilities and Infrastructure Cross-cut Budget

Attachment F. Integrated Facilities and Infrastructure Cross-cut Budget

Integrated Facilities and Infrastructure (IFI) Crosscut Budget Data Sheet	Project No.	Net Changes in Building Area ± (000 SF)	Prior Year FY 2012 Actual ($000)	Current Year FY 2013 Approp. ($000)	FY 2014 Budget Year ($000)	FY 2015 BY+ 1 ($000)	FY 2016 BY+2 ($000)	FY 2017 BY+3 ($000)	FY 2018 BY+4 ($000)	FY 2019 BY+5 ($000)	FY 2020 BY+6 ($000)	FY 2021 BY+7 ($000)	FY 2022 BY+8 ($000)	FY 2023 BY+9 ($000)
					<====== President's Budget Plan Years ======>					<====== President's Budget - Outyears ======>				
SITE NAME: Moab														
PROGRAM: Environmental Management														
4.0 Maintenance & Repair														
4.1 Direct Funded														
Crescent Jct, UT, UMTRCA Title I Site	CRJ01		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Crescent Jct, UT, Maintenance Building	CRJ01-BM		$0	$3	$3	$5	$4	$4	$6	$5	$5	$7	$6	$6
Crescent Jct, UT, Disposal Cell	CRJ01-DC		$0	$0	$1	$0	$0	$1	$0	$0	$1	$0	$0	$1
Crescent Jct, UT, Dirt Road	CRJ01-DRD		$0	$1	$1	$1	$2	$1	$1	$1	$2	$1	$1	$2
Crescent Jct, UT, Electrical System	CRJ01-ES		$1	$5	$1	$1	$1	$5	$1	$1	$1	$5	$1	$1
Crescent Jct, UT, Fence	CRJ01-F		$0	$1	$0	$0	$0	$0	$0	$1	$0	$0	$0	$0
Crescent Jct, UT, Haul Road	CRJ01-HR		$0	$25	$10	$15	$15	$27	$15	$15	$28	$15	$15	$29
Crescent Jct, UT, Lube Shed	CRJ01-LS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Crescent Jct, UT, Retention Pond	CRJ01-P		$0	$0	$0	$5	$0	$0	$0	$5	$0	$0	$5	$0
Crescent Jct, UT, Parking Lot	CRJ01-PL		$2	$2	$3	$3	$4	$4	$5	$5	$6	$6	$7	$7
Crescent Jct, UT, Access Road	CRJ01-RD		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Side Walk	CRJ01-SW		$0	$0	$0	$0	$0	$2	$0	$0	$0	$0	$2	$0
Crescent Jct, UT, Site DOE Trailer	CRJ01-TRL1		$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Site Contractor Trailer	CRJ01-TRL2		$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Site Administrative Trailer	CRJ01-TRL3		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Site Restroom Trailer	CRJ01-TRL4		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Disposal Cell Trailer	CRJ01-TRL5		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Radcon Trailer	CRJ01-TRL6	720	$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Trlr. Staging Area	CRJ01-TSA		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$2	$2
Crescent Jct, UT, Const. Water Line	CRJ01-WC		$29	$11	$11	$12	$75	$13	$13	$13	$14	$14	$15	$15
Crescent Jct, UT, Potable Water Line	CRJ01-WP		$0	$1	$0	$0	$1	$0	$0	$1	$0	$0	$1	$0
Moab, UT, UMTRCA Title I Site	MOA01		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Moab, UT Site Building	MOA01-BA		$5	$8	$8	$9	$9	$9	$10	$10	$10	$10	$11	$11
Moab, UT Maint. Building	MOA01-BM		$0	$8	$8	$8	$8	$8	$9	$9	$9	$10	$10	$11
Moab, UT, Container Rinse System	MOA01-CRS		$7	$8	$3	$3	$4	$4	$8	$4	$4	$5	$9	$5
Moab, UT, Decontamination Pad	MOA01-DP		$0	$5	$1	$1	$1	$6	$1	$1	$1	$6	$1	$1
Moab, UT, Dirt Road	MOA01-DRD		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
Moab, UT, Electrical System	MOA01-ES		$17	$11	$12	$12	$13	$13	$14	$14	$15	$15	$16	$16
Moab, UT, Extraction Well Field System	MOA01-EWF		$25	$31	$31	$32	$32	$29	$31	$31	$32	$33	$34	$35
Moab, UT, Fence	MOA01-F		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Moab, UT, Haul Road	MOA01-HR		$1	$25	$40	$18	$26	$18	$12	$27	$11	$12	$28	$12
Moab, UT, Lidding/Delidding Facility	MOA01-LDF		$8	$8	$8	$8	$9	$9	$9	$10	$10	$10	$11	$11
Moab, UT, Lube Shed	MOA01-LS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Moab, UT, Parking Lot	MOA01-PL		$0	$5	$1	$1	$1	$6	$1	$1	$1	$7	$1	$1
Moab, UT, River Inlet Pump System	MOA01-PS		$0	$3	$3	$3	$4	$4	$4	$4	$4	$4	$5	$5
Moab, UT, Access Road	MOA01-RD		$1	$2	$2	$2	$2	$2	$2	$2	$2	$2	$3	$3
Moab, UT, Field Services Trailer	MOA01-TRL1		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Communications Trailer	MOA01-TRL2		$4	$4	$4	$4	$4	$4	$5	$5	$5	$5	$5	$5
Moab, UT, Field Services Lab Trailer	MOA01-TRL3		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Access Control Trailer	MOA01-TRL4		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Project Support 2 Trailer	MOA01-TRL5		$1	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Project Support 1 Trailer	MOA01-TRL6		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Administrative Trailer	MOA01-TRL7		$2	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, DOE Trailer	MOA01-TRL8		$2	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Shower Trailer	MOA01-TRL9		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Men's Restroom Trailer	MOA01-TRL10		$1	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Conference Trailer	MOA01-TRL11		$0	$2	$2	$2	$2	$2	$3	$3	$3	$3	$3	$3
Moab, UT, Queue Conference Trailer	MOA01-TRL12		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Queue Restroom Trailer	MOA01-TRL13		$0	$1	$1	$1	$1	$1	$2	$2	$2	$2	$2	$2
Moab, UT, Queue Access Trailer	MOA01-TRL14	1632	$0	$3	$1	$1	$1	$2	$2	$2	$2	$2	$3	$3
Moab, UT, Truck Scale	MOA01-TS		$15	$5	$5	$5	$5	$5	$5	$6	$6	$6	$6	$6
Moab, UT, Trailer Staging Area	MOA01-TSA		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Moab, UT, Queue Trailer Staging Area	MOA01-TSAQ		$124	$12	$13	$25	$13	$14	$30	$15	$16	$32	$16	$17
Moab, UT, Underpass	MOA01-UP		$0	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
Moab, UT, Water System	MOA01-WS		$0	$1	$2	$1	$2	$1	$2	$2	$3	$2	$3	$2
Moab, UT, Adjacent Site	MOA02		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal		**2,352**	**$249**	**$211**	**$195**	**$198**	**$259**	**$214**	**$221**	**$225**	**$223**	**$244**	**$258**	**$248**
4.2 Indirect Funded (from Overhead or Space Charges)														
Subtotal		**0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
4.3 Total of Direct and Indirect Maintenance & Repair (4.1 + 4.2)		**2,352**	**$249**	**$211**	**$195**	**$198**	**$259**	**$214**	**$221**	**$225**	**$223**	**$244**	**$258**	**$248**

Attachment F. Integrated Facilities and Infrastructure Cross-cut Budget (continued)

Integrated Facilities and Infrastructure (IFI) Crosscut Budget Data Sheet	Project No.	FIMS Property ID	Method of Disposal	Net Changes in Building Area ± (000 SF)	RPV ($000)	Funding Type	Prior Year FY 2012 Actual ($000)	Current Year FY 2013 Approp. ($000)	FY 2014 Budget Year ($000)	FY 2015 BY+ 1 ($000)	FY 2016 BY+2 ($000)	FY 2017 BY+3 ($000)	FY 2018 BY+4 ($000)	FY 2019 BY+5 ($000)	FY 2020 BY+6 ($000)	FY 2021 BY+7 ($000)	FY 2022 BY+8 ($000)	FY 2023 BY+9 ($000)
									<===== President's Budget Plan Years ======>					<===== President's Budget - Outyears ======>				
SITE NAME: Moab																		
PROGRAM: Environmental Management																		
5.0 Disposition of Excess Facilities																		
Moab																		
TOTAL				0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

There are no excess facilities identified during the period of this TYSP.

Attachment G.
Existing and Planned Leases for Buildings and Trailers

Attachment G. Existing and Planned Leases for Buildings and Trailers

FIMS 201- Existing and Planned Leases for Buildings and Trailers

Program EM

Field Office EM Consolidated Business Center

Site Moab Site

Property Name	FIMS Property ID	Usage Code Description	Ingrant Square Feet	Lease Expiration (MM/DD/YYYY)	Annual Rent ($)	Other Cost ($)	Total Number of Occupants	Planned Action Year[2]	Planned Action[2]
Existing Leases[1]									
Grand Junction, CO, Office Space	GRJ01-B-RAC	101 Office	1,030	09/30/2016	$22,145.00	$0.00	4	2016	Expire
Grand Junction, CO, Office Space	GRJ01-B	101 Office	8,387	08/31/2015	$185,501.42	$0.00	21	2015	Acquisition
Totals			9,417		$207,646.42	$0.00	25		

Mission/Core Competency Requirement	Usage Code Description	Ingrant Square Feet	Will Ingrant Area Contribute to HPSB Guiding Principle Goals? (Yes/No)	Mission Requirement Start Date (Year)	Mission Requirement Completion Date (Year)	Number of Occupants Accommodated	Planned Action Year	Planned Action
Planned Leases[2]								
Mission Dependent	101 Office	9,417	No	2015	2025	35	2015	Acquisition
Totals		9,417				35		

[1] Criteria for this template includes both DOE and Contractor Leased Buildings and Trailers.
[2] Use Site Planning data to populate "Planned Action" and "Planned Action Year" for existing leases and all information for planned leases.

Attachment H.
Site Sustainability Plan Goal Summary Table

Attachment H. Site Sustainability Plan Goal Summary Table

SSPP Goal #	DOE EM Goal	Performance Status through FY2012	Planned Actions and Contribution	Risk of Non-attainment
GOAL 1: GHG Reduction and Comprehensive GHG Inventory				
1.1	28% Scopes 1 and 2 GHG reduction by FY2020 from a FY2008 baseline	Because the Project was in construction phase in FY2008, and tailings removal operations didn't begin until FY2009, an overall increase in Scopes 1 and 2 GHG emissions has been noted. Diesel consumption by heavy equipment was reduced by 51% from last FY.	Scopes 1 and 2 GHG emissions are expected to be reduced by a minimum of 3.5% in FY2013 due to a 3-month curtailment of operations.	Low
1.2	13% Scope 3 GHG reduction by FY2020 from a FY2008 baseline	Commute miles were reduced by 64% from the previous fiscal year, largely due to a workforce reduction during the fourth quarter of FY2011. Overall, the Project realized a decrease in business travel miles in FY2012 because air miles were reduced by 53%, but ground miles increased by 43%.	Based on a planned curtailment of operations for 3 months in FY2013, a Scope 3 GHG reduction is expected.	Low
GOAL 2: Buildings, Energy Savings Performance Contracts Initiative Schedule, and Regional and Local Planning				
2.1	30% energy-intensity reduction by FY2015 from a FY2003 baseline	Based on the reduced activity level, a decrease in energy intensity was expected in FY2012. However, due to recurring difficulties with a river pumping system used for construction water at Crescent Junction, the Project combined its pump system with an adjacent landowner's. The negotiated agreement with that landowner, which added his electrical usage to the Project's electrical system, resulted in increased electrical usage and costs for FY2012.	Based on planned reductions in operations and employment levels for 3 months in FY2013, energy usage is expected to be reduced by a minimum of 10%.	Low
2.2	EISA Section 432 energy and water evaluations	EM has excluded Moab from the EISA Section 432 requirements.	There are no plans to implement EISA Section 432 requirements.	Low
2.3	Individual buildings metering for 90% of electricity (by October 1, 2012); for 90% of steam, natural gas, and chilled water (by October 1, 2015)	There have been no individual meters installed.	The Project currently has no plans to introduce advanced metering based on the cost to do so.	Low

Attachment H. Site Sustainability Plan Goal Summary Table (continued)

SSPP Goal #	DOE EM Goal	Performance Status through FY2012	Planned Actions and Contribution	Risk of Non-attainment
2.4	Cool roofs, unless uneconomical, for roof replacements unless the Project already has CD-2 approval. New roofs must have thermal resistance of at least R-30	There have been no roof replacements.	The Project currently has no plans to introduce cool roofs based on the cost to do so.	Low
2.5	15% of existing buildings larger than 5,000 GSF are compliant with the GPs of HPSB by FY2015	All structures at both sites (except one permanent building in very poor condition) are relocatable, and potentially every structure will be demolished or removed at Project completion. Therefore, an assessment for the GPs has not been performed.	There are no planned actions beyond regularly scheduled maintenance and anticipated major repairs or replacement of components over the expected service life of the facilities.	Low
2.6	All new construction, major renovations, and alterations of buildings larger than 5,000 GSF must comply with the GPs	There have been no actions beyond regularly scheduled maintenance and repairs or replacement of components.	There are no planned actions beyond regularly scheduled maintenance and anticipated major repairs or replacement of components over the expected service life of the facilities.	Low
2.7	7.5% of annual electricity consumption from renewable sources by FY2013 and thereafter	The Project currently participates in the Blue Sky Renewable Energy Program by buying 10% renewable energy, although there was a 5-month interruption in service in FY2012 due to a contractor change.	The Project plans to continue its commitment to participate in the Blue Sky Renewable Energy Program by buying 10% renewable energy, thus exceeding the 7.5% DOE goal.	Low
GOAL 3: Fleet Management				
3.1	10% annual increase in fleet alternative fuel consumption by FY2015 relative to a FY2005 baseline	E85 fuel purchases have increased by 852% since FY2008.	Currently, E85 fuel while available in Grand Junction is not available in the Moab or Crescent Junction areas. E85 will be utilized as soon as it becomes available, meeting alternate fuel consumption increase and petroleum fuel reduction goals.	Low
3.2	2% annual reduction in fleet petroleum consumption by FY2020 relative to a FY2005 baseline	As a result of reduced operations, overall fuel consumption decreased by 59% in FY2012 from the previous year.	Based on planned reductions in operations and employment levels for 3 months in FY2013, energy usage is expected to be reduced by a minimum of 10%.	Low

Attachment H. Site Sustainability Plan Goal Summary Table (continued)

SSPP Goal #	DOE EM Goal	Performance Status through FY2012	Planned Actions and Contribution	Risk of Non-attainment
3.3	100% of light duty vehicle purchases must consist of AFVs by FY2015 and thereafter (75% FY2000 - FY2015)	100% of the vehicle acquisitions in FY2012 were alternative-fuel GSA-leased vehicles.	Future GSA-leased vehicle replacements are projected to be AFVs, allowing the Project to meet the 75% goal within the next 2 years.	Low
3.4	Reduce fleet inventory of non-mission critical vehicles by 35% by FY2013 relative to a FY2005 baseline	The Project reduced its fleet by 13 vehicles, meeting the 35% reduction goal for FY2013.	The Project has met this goal. There are no further actions planned.	NA
GOAL 4: Water Use Efficiency and Management				
4.1	26% potable water-intensity (gallons per GSF) reduction by FY2020 from a FY2007 baseline	Tailings removal operations did not begin until FY2009, so water-intensity calculations are not available until then. A waterline was constructed to the Crescent Junction site from the Green River, thus reducing total domestic water usage for the Project and meeting the 26% water-intensity reduction goal.	There are no further actions planned.	NA
4.2	20% water consumption (gallons) reduction of ILA water by FY2020 from a FY2010 baseline	Construction water consumption levels have been mandated by the U.S. Nuclear Regulatory Commission and other regulatory agencies and, as such, are not appropriate for consumption reduction goals.	The Project will meet the 20% agriculture consumption reduction goal through the planting of low-water, drought-resistant, native plants.	Low
GOAL 5: Pollution Prevention and Waste Reduction				
5.1	Divert at least 50% of non-hazardous solid waste, excluding construction and demolition debris, by FY2015	There was a 56% reduction in off-site non-hazardous solid waste due to decreased operations in FY2012. Non-hazardous solid waste diverted consisted of commonly recycled items (e.g., batteries, fluorescent light bulbs, aluminum cans, plastic bottles, paper).	Waste reduction practices for this Project will continue at the present level. Due to the remote location of the Project sites, many diversion options are not available.	Low
5.2	Divert at least 50% of construction and demolition materials and debris by FY2015.	There were no construction activities performed in FY2012.	No construction activities are anticipated before FY2016.	NA

Attachment H. Site Sustainability Plan Goal Summary Table (continued)

SSPP Goal #	DOE EM Goal	Performance Status through FY2012	Planned Actions and Contribution	Risk of Non-attainment
GOAL 6: Sustainable Acquisition				
6.1	Procurements meet requirements by including necessary provisions and clauses (Sustainable Procurements/Biobased Procurements)	Procurements developed by the Technical Assistance Contactor and new Remedial Action Contractor (started in April 2012), contained the necessary provisions and clauses.	Sustainable procurement activities will continue in an effort to meet and maintain DOE goals.	Low
GOAL 7: Electronic Stewardship and Data Centers				
7.1	All data centers are metered to measure a monthly PUE of100% by FY2015.	NA	NA	NA
7.2	Maximum annual weighted average PUE of 1.4 by FY2015	NA	NA	NA
7.3	Electronic Stewardship 100% of eligible PCs, laptops, and monitors with power management actively implemented and in use by FY2012	All eligible PCs, laptops, and monitors have power management actively implemented and in use.	This goal has been met.	NA
GOAL 8: Innovation and Government-wide Support				
8.0	Innovation and government-wide support	Site-specific objectives: Nothing to report.		

EISA = Energy Independence and Security Act; GP = Guiding Principle; GSA = Government Services Administration; GSF = gross square feet; HPSB = high-performance and sustainable building; ILA = industrial, landscaping, and agricultural; NA = not applicable; PC = personal computer; PUE = power utilization effectiveness

Appendix 1.
Glossary of Terms, Acronyms, and Abbreviations

Appendix 1. Glossary of Terms

Active facilities – Facilities with a FIMS status of Operating, Operational Standby or Operating Pending Deactivation and Decontamination (facility required for current and ongoing mission needs).

Alterations – Adjustments to interior arrangements or other physical characteristics of an existing facility so that it may be more effectively adapted to or used for its designated purpose. Alterations do not result in betterment to a facility (DOE O 430.1 B, Change 2).

Annual actual maintenance – Actual costs incurred in the current fiscal year of all maintenance activities for a building, trailer/modular, or OSF (FIMS User's Guide, 09/05/2012). Projections of actual maintenance should reflect the funding targets.

Annual required maintenance – Estimates of all costs required to perform maintenance activities for a building, trailer/modular structure, or other structure or facility in the current fiscal year that one would normally expect to be accomplished as determined by engineering/maintenance/lifecycle analysis and vendor maintenance schedule. Included are preventive maintenance, predictive maintenance, and any other maintenance activity required for which the current fiscal year is the optimum period of accomplishment. Costs for unforeseen repairs are generally not known and should not be reported in this category (FIMS User's Guide, 09/05/2012). Projections of required maintenance should be unconstrained.

Annual utilization surveys – Annual utilization surveys are directed by Federal Property Management Regulations § 101-47.802 to determine how well the real property assets are being put to use. The survey content must address the standard specified in Federal Property Management Regulations § 101-47.801, Standards (DOE O 430.1B).

Asset condition index (ACI) – ACI is the Department's corporate measure of the condition of its facility assets. The ACI reflects the outcomes of real property maintenance and recapitalization policy, planning, and resource decisions. The index is one (1) minus the FCI ACI = 1 – FCI). FCI is the ratio of deferred maintenance to replacement plant value (RPV). The FCI is derived from data in FIMS (DOE O 430.1B).

Ratings are assigned to ACI range measures. The goal is for the ACI to approach one (1). The ACI increases and approaches one (1) as the condition of facilities improves at a site. ACI ranges and ratings are as follows:

ACI Range	ACI	Rating
1.00 > 0.98		Excellent
0.98 > 0.95		Good
0.95 > 0.90		Adequate
0.90 > 0.75		Fair
0.75 >	Poor	

Asset management plan – Is an FRPC requirement that each Executive Agency will draft an Asset Management Plan (AMP) that addresses, at a minimum, the Federal Real Property Council Guiding Principles and the AMP required components. AMPs are subject to OMB review and approval.

Appendix 1. Glossary of Terms (continued)

Asset utilization index (AUI) – Consistent with Federal Real Property Reporting Guidelines, utilization will be captured as a percent utilization on a scale of 0 percent to 100 percent for each FIMS record. The rate of utilization for five key facility types is summarized in the table below.

Rate	Categories and Percent Utilization				
	1. Offices	2. Warehouses	3. Hospitals	4. Laboratories	5. Housing
Over-utilized	>95%	>85%	>95%	>85%	N/A
Utilized	75-95%	50-85%	70-95%	60-85%	85-100%
Under-utilized	<75%	10-50%	25-70%	30-60%	<85%
Not utilized	N/A	<10%	<25%	<30%	N/A

Utilization for each category is measured as follows:

- Offices: ratio of occupancy to current design capacity.
- Warehouses: ratio of gross square feet occupied to current design capacity.
- Hospitals: ratio of occupancy to current design capacity.
- Laboratories: ratio of active units to current design capacity.
- Housing: housing will be measured as a percent of individual units that are occupied.

Standard FIMS Report #093 Reports the AUI and outlines both FRPC guidelines and Office of Acquisition and Project Management guidelines.

Authorization basis – Safety documentation supporting the decision to allow a process or facility to operate. Included are corporate operational and environmental requirements as found in regulations and specific permits and, for specific activities, work packages or job safety analysis (in accordance with DOE Guide 450.4-1C, "Integrated Safety Management System Guide," dated September 29, 2011).

Betterments – Capitalized improvements to facilities that result in better quality work, increased capacity, and/or extended useful life as required to accommodate regulatory and other changes to requirements. Determining when and to what extent expenditure should be treated as betterment requires judgment. The proper basis for determining whether betterment is effected is when the effect of the replacement is related to each unit when a minor item is replaced in each of a number of similar units, rather than to the cumulative costs. The various terms that are commonly used to describe various categories of betterments are listed below.

- Construction is: the erection, installation, or assembly of a new plant facility; the addition, expansion, improvement, or replacement of an existing facility; or the relocation of a facility. Construction includes: equipment installed in and made part of the facility and related site preparation; excavation, filling and landscaping, or other land improvements; and design of the facility.

- Examples of improvements to an existing facility include the following types of work:
  - Replacing standard walls with fireproof walls.
  - Installing a fire sprinkler system in a space that was previously not protected with a sprinkler system.
  - Replacing utility system components with significantly larger capacity components (e.g., replacing a 200-ton chiller with a 300-ton chiller) and converting the functional purpose of a room (e.g., converting an office into a computer room).
- Conversion is a major structural revision of a facility that changes the functional purpose for which the facility was originally designed or used.
- Major renovation and replacement is a complete reconstruction of a facility that has deteriorated or has been damaged beyond the point where its individual parts can be economically repaired. If the item replaced is a retirement unit, its original costs (including installation cost) are removed from the plant and capital equipment accounts, and the cost of the newly installed item (including installation cost) is added to the plant and capital equipment accounts (DOE O 430.1B).

Capital equipment – Heavy equipment includes all vehicles, railroad stock, processing or manufacturing machinery, shop machinery, reactor or accelerator machinery, and reserve construction machinery. Special and scientific equipment includes medical, laboratory, and security equipment. Automated data processing equipment includes computers, printers, cathode ray tubes, operating system software, and interface peripherals (DOE Accounting Handbook, Chapter 10, Property, Plant, and Equipment).

Certified Realty Specialist (CRS) – A DOE employee who is certified in one or more of four specialty realty areas: (1) acquisition; (2) non-General Services Administration (GSA) leasing, (3) GSA leasing, and (4) land management and disposal. Employees so certified are authorized to prepare and implement real estate actions within certified specialty areas. Detailed guidance and procedures for becoming a CRS are found in the DOE Real Estate Process Desk Guide for Real Estate Personnel (DOE O 430.1B).

Closure plan – The plan to deactivate, decontaminate, decommission and dispose of the site and its facilities (DOE O 430.1 C).

Closure site – A site at which DOE missions (other than long-term stewardship) will be completed and facilities dispositioned within the 10-year planning cycle (DOE O 430.1C).

Cognizant Secretarial Office (CSO) – A Program Secretarial Office that has responsibility as an owner for a program-specific (programmatic) facility or area present on a site that is owned by another program office (i.e., the Lead Program Secretarial Office). The CSO coordinates with the site owner (i.e., the LPSO) to ensure needed infrastructure support is planned and provided for its facilities/area (DOE O 430.1B).

Construction – Is the erection, installation, or assembly of a new plant facility; the addition, expansion, improvement, or replacement of an existing facility; or the relocation of a facility. Construction includes equipment installed in and made part of the facility and related site preparation; excavation, filling and landscaping, or other land improvements; and the design of the facility (DOE Accounting Handbook, Chapter 10, Property, Plant, and Equipment).

Appendix 1. Glossary of Terms (continued)

Contaminated facilities – DOE facilities that have structural components and/or systems contaminated with hazardous chemicals and/or radioactive substances, including radionuclides. This definition excludes facilities that contain no residual hazardous substances other than those present in building materials and components, such as asbestos-containing material, lead-based paint, or polychlorinated biphenyl-containing equipment. This definition excludes facilities in which bulk or containerized hazardous substances, including radionuclides, have been used or managed if no contaminants remain in or on structural components and/or systems (DOE O 430.1B).

Corrective maintenance – The repair or restoration of failed or malfunctioning equipment, systems, or facilities to their intended functions or design conditions. It does not result in a significant extension of the expected useful life (DOE O 430.1B).

Deactivation – Placing a facility in a stable and known condition, including the removal of hazardous and radioactive materials to ensure adequate protection of the worker, public health and safety, and the environment, thereby limiting the long-term cost of surveillance and maintenance. Actions include the removal of fuel, draining and/or de-energizing non-critical systems, removal of stored radioactive and hazardous materials, and related actions. Deactivation does not include all decontamination necessary for the dismantlement and demolition phase of decommissioning, (e.g., removal of contamination remaining in the fixed structures and equipment after deactivation) (DOE O 430.1B).

Decommissioning – Refers to closing and securing nuclear facilities or nuclear materials storage facilities. It also provides adequate protection from radiation exposure and isolate radioactive contamination from the human environment. It takes place after deactivation and includes surveillance, maintenance, decontamination, and/or dismantlement. These actions are taken at the end of the life of a facility to retire it from service with adequate regard for the health and safety of workers and the public and protection of the environment. The ultimate goal of decommissioning is unrestricted release or restricted use of the site (DOE O 430.1B).

Decontamination – The removal or reduction of residual radioactive and hazardous materials by mechanical, chemical or other techniques to achieve a stated objective or end condition (DOE O 430.1B).

Deferred maintenance (DM) – Maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period (DOE O 430.1B) Do not include replacement-in-kind and costs associated with programmatic assets.

Demolition – Destruction and removal of facilities or systems from the construction site. This is a direct cost (DOE G 430.1-1).

Direct costs – Any costs that are (can be) identified with a particular program the first time the costs are charged. These costs are directly charged to a program since they are directly related to and are being incurred principally for the benefit of the program receiving the charges. These costs generally consist of direct labor, materials, and supplies (DOE Budget Formulation Handbook).

Disposal – Permanent or temporary transfer of DOE control and custody of real property assets to a third party who thereby acquires rights to control, use, or relinquish the property (DOE O 430.1B).

Appendix 1. Glossary of Terms (continued)

Disposition – Those activities that follow completion of program missions, including, but not limited to, preparation for re-use, surveillance, maintenance, deactivation, decommissioning, and long-term stewardship (DOE O 430.1B).

Disposition baseline – The technical, programmatic, and regulatory information which serves as input to the disposition preparation and planning process and is essential to meeting the goal of maximum risk reduction and long-term cost savings in the elimination of excess real property assets (DOE O 430.1B).

Energy Savings Performance Contracts (ESPC) – ESPC is designed to accelerate investment in cost-effective, energy-conservation measures in existing federal buildings and thereby save taxpayer dollars. Such contracts typically provide for installation of energy conservation measures financed with private sector funds, which are repaid out of the resulting energy cost savings over time (http:/www1.eere.energy.gov/femp/financing/superespcs_esperule.html).

Excess real property – Land, improvements to land, or both, including interest therein, which is not required for the Department's needs or the discharge of its responsibilities. For the purposes of reporting deferred maintenance, excess real property is an asset that is on the path to disposition (DOE O 430.1B).

Expense funded projects – Project activities funded with operating dollars. Examples of these projects include normal maintenance and repair, such as painting, cleaning, and small repair jobs not resulting in an addition, replacement of a retirement unit, or betterment (DOE Accounting Handbook, Chapter 10, Property, Plant, and Equipment).

Facility – Land, buildings, and other structures, their functional systems and equipment, and other fixed systems and equipment installed therein, including site development features outside the plant, such as: landscaping, roads; walks; parking areas; outside lighting and communication systems; central utility plants; utilities supply and distribution systems; and other physical plant features. These include any of the DOE-owned, -leased, or -controlled facilities, and they may or may not be furnished to a contractor under a contract with DOE (DOE O 430.1B).

Facility condition index (FCI) – DOE adopted the FCI in 1998 as its tool for measuring the condition of its facilities. The FCI is the ratio of the cost of deferred maintenance to the facility's RPV. The cost of deferred maintenance deficiencies is determined by condition assessment inspections. FIMS data is used to calculate FCI (DOE O 430.1B).

Facilities Information Management System (FIMS) – The FIMS is DOE's official, corporate real property database. FIMS provides an automated mechanism that allows users to manage all real property, including land and its natural resource, any man-made alterations and additions (e.g. buildings, trailer/modular structures, permanent fixtures, and equipment). It was designed to provide management with an accurate tool that can be used for planning, monitoring, and verifying real property data by DOE offices, respond to both internal and external inquiries, provide easy to access up-to-date information, and automate the preparation of electronic reports for the Government Services Administration, Emergency Management Agency, and Congress.

***Federal Real Property Asset Management (Executive Order 13327)* –** On February 4, 2005, President Bush signed Executive Order 13327, "Federal Real Property Asset Management" (http://www.whitehouse.gov/news/releases/2005/02/20050204-1.html). This Executive Order is intended to significantly improve the management of Federal Government properties by establishing a Federal Real Property Council; establishing a Senior Real Property Officer for each executive agency, and reforming authorities for managing Federal real property.

***Federal Real Property Council (FRPC)* –** On February 4, 2005, President Bush signed Executive Order 13327, *Federal Real Property Asset Management* which created an interagency FRPC to develop guidance, serve as a clearinghouse for best practices, and facilitate the efforts of the Senior Real Property Officers (http://www.whitehouse.gov/news/releases/2005/02/20050204-1.html).

***General plant projects (GPPs)* –** Miscellaneous, minor new construction projects of a general nature, the total estimated cost of which may not exceed the statutory limit of $10 million. GPPs are necessary to adapt new facilities or improve production techniques, to effect economies of operations, and to reduce or eliminate health, fire, and security problems. These projects provide for design and/or construction, additions, improvements to land, buildings and utility systems, and they may include the construction of small new buildings, replacements, or additions to roads, and general area improvements (DOE Accounting Handbook, Chapter 10, Property, Plant, and Equipment).

***General purpose equipment (GPE)* –** Refers to items of plant and equipment, including both real and personal property, that are owned by DOE, are recorded in the completed plant accounts, and meet the monetary and service life criteria for capitalization (i.e., a service life of 2 years or more, and a cost equal to or greater than $25,000), regardless of the appropriation or fund charged. Group purchases of similar items that each cost less than the minimum ($25,000) but when combined constitute a significant investment, are considered capitalized property, such as automated information system components. For additional details and exclusion concerning plant and capital equipment, see the DOE Accounting Handbook (DOE Budget Execution Manual 135.1-1, Attachment 1-2 (25), 6-5-97. Definition tracks current proposal for revision).

***Grandfathered* –** Refers to projects that meet the provision that approval for start of construction was provided prior to FY2003. Approved, grandfathered projects are not required to meet the Congressional space offset requirement. Projects with construction starts (when the project receives Critical Decision-3) prior to the end of FY2002, are considered grandfathered.

***Gross square feet (GSF)* –** The total floor area of a building in square feet (exterior wall to exterior wall) (FIMS User's Guide, 09/05/2012).

***Inactive* –** Not currently being used but may have a future need. Includes real property in a caretaker status (closed pending disposal) and closed installations with no assigned current federal mission or function (FY 2006 Federal Real Property Reporting Requirement - FRPC Data Changes).

***Indirect costs* –** Are costs that are not identified with a single, specific, final cost objective. These costs, collected in cost pools, are distributed or allocated to a final cost objective based on a predetermined methodology. Site overhead costs, service centers, and organizational burden are examples of indirect costs (DOE Budget Formulation Handbook).

Appendix 1. Glossary of Terms (continued)

Infrastructure – All real property, installed equipment, and related real property that is not solely supporting a single program mission at a multi-program site or that is not programmatic real property at a single program site (DOE O 430.1B).

Institutional controls – Non-engineering measures intended to affect human activities in such a way as to prevent or reduce exposure to hazardous substances as allowed by contract. There are four categories of institutional controls: (1) governmental controls; (2) proprietary controls; (3) enforcement and permit tools with institutional controls components; and (4) information devices. Institutional controls are those governmental controls such as deed notifications, easements, use restrictions, leases and other property interests that are inventoried as records and notes in records in the FIMS (DOE O 430.1B).

Institutional general plant project (IGPP) – IGPPs are miscellaneous minor (i.e., less than $5 million) new construction projects of general institutional nature benefiting multiple cost objectives and required for general-purpose, site-wide needs. IGPP do not include projects with benefits that can be directly attributed to a specific or single program. Examples of IGPPs are: multi-programmatic/inter-disciplinary scientific laboratory; institutional training facility; site-wide maintenance facilities and utilities; new roads; multi-programmatic office space; and multi-programmatic facilities required for "quality of life" improvements.

Integrated Facilities and Infrastructure (IFI) Crosscut Budget – IFI is a crosscutting budget exhibit that has been developed to ensure sustained improvement in real property management. It constitutes the resources required to implement a Ten-Year Site Plan. This crosscut budget identifies renovation, recapitalization, maintenance and demolition projects for buildings and facilities by program and site. The IFI budget also includes reports on direct maintenance and an estimate of indirect maintenance and repair funding requirements. The IFI is developed in conjunction with the Department's budgeting process and submitted annually with the Presidential Budget to Congress (DOE O 430.1B).

Land-use planning – Is a formal, integrated planning process that is used to identify an appropriate mix of land uses at each site and guidelines for development (DOE P 430.1, *Land and Facility Use Planning*, dated July 9, 1996; DOE O 430.1B).

Lead Program Secretarial Office (LPSO) – Is a PSO that is responsible for implementation of policy promulgated by Headquarters staff and support organizations for a field office. The LPSO owns the site, manages its own program projects, and acts as a host for tenant CSOs or PSOs by providing facility and/or infrastructure support (DOE O 430.1B).

Lifecycle – The life of an asset from planning through acquisition, maintenance, operation, remediation, disposition, LTS, and disposal (DOE O 430.1B).

Lifecycle cost – The sum total of the direct, indirect, recurring, nonrecurring, and other related costs incurred or estimated to be incurred in the design, development, production, operation, maintenance, support, and final disposition of real property over its anticipated useful life span (DOE O 430.1B).

Line item projects – Those separately identified project activities that are submitted for funding and are specifically reviewed and approved by Congress (DOE O 430.1B).

Appendix 1. Glossary of Terms (continued)

Long-term stewardship (LTS) – The physical controls, institutions, information, and other mechanisms needed to ensure protection of people and the environment at sites where DOE has completed or plans to complete cleanup (e.g., landfill closures, remedial actions, removal actions, facility stabilization). This concept includes land-use controls, monitoring, maintenance, and information management (DOE O 430.1B).

Maintenance – Daily work required to sustain property in a condition suitable for it to be used for its designated purposes, including preventive, predictive, and corrective maintenance (DOE Order 430.1B). Maintenance costs and work do not include the following:

- Regularly scheduled, janitorial work, such as cleaning, and preserving facilities and equipment.
- Work performed in relocating or installing partitions, office furniture, and other associated activities.
- Work usually associated with the removal, moving, and placement of equipment.
- Work aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from or significantly greater than those originally intended.
- Improvement work performed directly by in-house workers or in support of construction contractors accomplishing an improvement.
- Work performed on special projects not directly in support of maintenance or construction.
- Non-maintenance roads and grounds work, such as grass cutting and street sweeping.

Predictive maintenance – Those activities involving continuous or periodic monitoring and diagnosis to forecast component degradation so that "as-needed" maintenance can be scheduled (DOE O 430.1B).

Preventive maintenance – Those periodic and planned actions taken to maintain a piece of equipment within design operating conditions and to extend its life that are performed before equipment failure or to prevent equipment failure (DOE O 430.1B).

Proactive maintenance – The metric/measure of the amount of actual dollars spent annually on Proactive Maintenance (preventive and predictive) of DOE real property assets to the actual dollars spent annually on total maintenance, expressed as a percentage.

$$\text{Proactive Maintenance} = \frac{\text{Preventive + Predictive Maintenance}}{\text{Total Maintenance}} \times 100\%$$

Mission dependency – The value an asset brings to the performance of the mission as determined by DOE in one of the following categories (FRPC):

- Mission critical: Land or constructed assets deemed necessary to perform the primary missions assigned to a particular site. This would encompass any facility or infrastructure predominantly used to perform scientific, production, environmental restoration, or stockpile stewardship and, without which, operations would be disrupted or fail to meet safety requirement.
- Mission dependent, not critical: Land or constructed assets that play a supporting role in meeting the primary missions assigned to a particular site. Loss of Mission Dependent, Not Critical assets would not immediately disrupt operations and can be reasonably restored or otherwise addressed prior to impacting operations.

- Not mission dependent: Land or constructed assets that are not in support of the primary missions assigned to a particular site which but support secondary missions and/or quality of workplace initiatives. Loss of a Not Mission Dependent asset results in inconvenience and indirectly impacts operations if unavailable for an extended period. Further, assets determined to be excess to the site mission fall under this category.

Operating efficiency – Is any measures used to track the operating efficiency of assets. For example, cleaning, maintenance, and utility costs tracked per square foot, or energy consumption tracked by the British thermal units consumption per gross square foot.

Operating facilities – Facilities that have a FIMS status code of operating, operating standby, operating pending excess, operating under out-grant, or operating pending decontamination and demolition/disposition (DOE O 430.1B).

Optimum period – The time in the lifecycle of an asset when maintenance actions should be accomplished to preserve and maximize the useful life of the asset. The determination is based on engineering/maintenance analysis and is independent of funding availability or other resource implications.

Other project costs – For purposes of allocating indirect costs to DOE construction/capital projects, this would mean that, in addition to fringe and organizational burden, an equitable share of all general and administrative and other site-wide common support activities would be charged to all cost objectives, regardless of the type of funding. In most, if not all, instances, this would result in the application of the same overhead/indirect rate to both operating and construction/capital projects. However, this does not preclude the use of a different rate if there are cost centers/costs that are material and which do not have a causal and beneficial relationship to construction/capital projects (DOE Budget Formulation Handbook).

Personal property – Is generally property that can be moved (i.e., not permanently affixed to and part of the real estate). Generally, items remain personal property if they can be moved without seriously damaging or diminishing the functional value of either the real estate or the items themselves. Examples of personal property include, but are not limited to, shop and lab equipment, motor vehicles or aircraft, construction equipment, and automated data processing and peripheral equipment (DOE O 430.1B).

Plant, property, and equipment – Tangible assets that meet the capitalization criteria, that are not intended for sale in the ordinary course of operations, and that have been acquired or constructed with the intention of being used or being available for use by the entity. Plant, property, and equipment includes site infrastructure (DOE O 430.1B).

Programmatic equipment: Refers to personal property used by programmatic personnel, including the personal property meeting the threshold for the list of capital equipment. (DOE Chief Financial Officer, FY2003 Real Property Deferred and Annual Maintenance Reporting Requirement).

Programmatic Real Property – Refers to reactors, accelerators, and similar devices used by programmatic personnel, acquired with line item funding, and listed in the FIMS as Other Structures and Facilities under the 3200 series usage codes, such as 3209, 3221, 3251 and 3261 (DOE O 430.1B).

Appendix 1. Glossary of Terms (continued)

Program Secretarial Office (PSO) – A senior outlay program office which has work performed at a site, but not as the host LPSO of CSO at that site, and provides annual program direction and guidance to the site/field manager for the work to be performed at the site, and for budgeting to support program work and an appropriate share of their tenant costs to the landlord (DOE O 430.1B).

Project engineering and design fund – Design funds established for use on preliminary design, which are operating expense funds. Typically, project engineering and design funds are used for preliminary and final design and related activities for design-bid-build strategies, and for preliminary design and related costs in design-build strategies (DOE O 413.3B, "Program and Project Management for the Acquisition of Capital Assets").

Quarterly performance report (QPR) – Reports of real property metrics that are provided to the Office of Acquisition and Project Management and used to assess EM performance.

Real estate actions – Documents and activities related to acquisition, management, and disposal of real property interests (e.g., easements, leases, fee title, public domain withdrawals, mineral rights). This includes, but is not limited to: land-use permits; land surveying; appraisals; market surveys; acquisitions; in-granting; out-granting; management directives; utilization surveys; encroachment; disposal of any real estate interests; disposal of Departmental improvements without the underlying land; and establishment of use restrictions, easements, and similar institutional controls (DOE O 430.1B).

Real property assets – Any interest in land, together with the improvements, facilities, structures, and fixtures located thereon, including prefabricated movable structures and appurtenances thereto, under the control of DOE. All real property owned by, leased to the government, or acquired by the government under the terms of a contract. It includes both government-furnished property and contractor-acquired property as defined in Federal Acquisition Regulation 45.101. DOE-owned, -used and -controlled land, land improvements, structures, utilities, installed equipment, and components are included. Real property and real estate means land and rights in land, ground improvements, utility distribution systems, and buildings and other structures. Real Property Assets are defined by the Federal Property Management Regulations § 101-47.103-12, Real Property (DOE O 430.1B).

Recapitalization – Major renovations or reconstruction activities, including facility replacements, needed to keep existing facilities modern and relevant in an environment of changing standards and missions. This includes the restoration and modernization of existing facilities, but not the acquisition of new facilities or the demolition of old ones, unless the demolition is carried out as part of a renovation project or in conjunction with construction of replacement footprint elsewhere (DOE O 430.1B).

Repair – The restoration of failed or malfunctioning equipment, system, or facility to its intended function or design condition. Repair does not result in a significant extension of the expected useful life (DOE O 430.1B).

Appendix 1. Glossary of Terms (continued)

Replacement – A complete reconstruction of a plant record unit that has deteriorated or has been damaged beyond the point where its individual parts can be economically repaired. If the item replaced is a retirement unit, its original costs (including installation cost) are removed from the Plant and Capital Equipment (P&CE) accounts, and the cost of the newly installed item (including installation cost) is added to the P&CE accounts per DOE Accounting Handbook, Chapter 10, 10-1 b (4) (c).

Replacement plant value (RPV) – Cost to replace an existing structure with a new structure of comparable size using current technology, codes, standards, and materials (DOE O 430.1B).

Senior Real Property Officer – The individual designated by each federal agency who is responsible for the effective management of agency real properties, consistent with the guidance and requirements of the FRPC (Executive Order 13327).

Site – A geographic area owned or leased by or for the account of the federal government for the performance of DOE program activities. The term includes any extant buildings, infrastructure and other improvements (DOE O 430.1B).

Site/Field Manager – Individual responsible for planning, programming, budgeting, and evaluation of activities in support of Secretarial Office programs located on sites under his or her cognizance, including the host LPSO to tenant CSO and PSO activities that establish site priorities consistent with mission objectives and goals established by DOE program offices having line responsibility, leading site technical direction, preparing and defending the site budget, supporting milestones agreed to with the LPSO, the CSO or the PSO, providing public and private sector liaison, expediting follow-up actions, and retaining overall accountability for site activities in support of program office successes (DOE O 430.1B).

Standby facilities – Facilities with a FIMS designation of Operational Standby (future programmatic use other than cleanup expected).

Status – DOE's FIMS requires an asset's status to be categorized by one of the following FIMS codes: (1) Operating; (2) Operating Standby; (3) Shutdown Pending Transfer; (4) Shutdown Pending D&D; (5) D&D in Progress; (6) Operating Pending D&D; (7) Operating Under an out-grant; (8) Federal Transfer (archive); (9) Sale (archive); (10) Demolished (archive); (11) Deactivation; (12) Shutdown Pending Disposal; (13) Active; (14) Inactive; (15) Public (benefit) Conveyance (archive); (16) Lease Termination (archive); or (17) Other Disposition (archive).

For the purposes of reporting status consist with FRPC reporting requirements, buildings, structures and land parcels will be reported under one the following status values: (1) Active; (2) Inactive; (3) Excess; or (4) Out-grant/Out-leased. For required annual reporting to the FRPC, DOE's Office of Administration and Personnel will automatically map an asset's FIMS Value to an appropriate FRPC Value. For specific information as to how FIMS values are mapped annually to FPC values, refer to the most recent FRPC reporting instructions.

Surveillance and Maintenance (S&M) – Activities conducted throughout the facility lifecycle, including periodic inspections and maintenance of structures, systems, and equipment necessary for the satisfactory containment of contamination and for the protection of workers, the public, and the environment (DOE O 430.1B).

Appendix 1. Glossary of Terms (continued)

Sustainment – Maintenance and repair activities necessary to keep the inventory of facilities in good working order. This includes regularly scheduled maintenance as well as anticipated major repairs or replacement of components that occur periodically over the expected service life of the facilities (DOE O 430.1B).

Total project cost (TPC) – DOE has traditionally identified project costs in two categories: (1) total estimated cost, and (2) other project cost. The sum of the total estimated cost and other project costs make up the total project cost.

Total estimated cost includes project costs incurred after CD-1, such as costs associated with the acquisition of land and land rights; engineering, design, and inspection; direct and indirect construction/fabrication; and the initial equipment necessary to place the plant or installation in operation. Total estimated cost may be funded as an operating or capital expense.

Other project costs include all project costs that are not identified as total estimated cost costs. Generally, other project costs are costs incurred during the initiation and definition phases for planning, conceptual design, research and development, and during the execution phase for startup and operation. Other project costs are always operating funds (DOE O 413.3B).

Transfer of facilities – Transferring programmatic and financial responsibility of land and/or facilities from one program office to another (DOE O 430.1B).

Utilization justified assets – The summation for a site of the product of each operating facilities area, in square feet, times its utilization rate in FIMS. For land, it is the acreage of the site identified as fully utilized under an Executive Order 12512, "Federal Real Property Management" survey (DOE O 430.1B).

Value engineering (VE) – An organized effort directed toward analyzing the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest lifecycle cost consistent with required performance, reliability, quality, and safety. For purposes of DOE Order 430.1B, value analysis, value management, and value control are considered synonymous with VE (DOE O 430.1B).

Waiver – In Conference Committee Report 107-258, that accompanies the FY2002 Energy and Water Development Appropriation Bill, the Committee established the requirement that for each DOE site, the footprint added by construction of new facilities must be offset by the elimination of an equal amount of excess footprint at the site. On a case-by-case basis, and when it is deemed impractical due to critical mission requirements, the Secretary of Energy can provide a waiver to allow the offset requirement to be met through the reduction of excess facilities at another site.

Work for Others – Work for Others is the performance of work for non-DOE entities by DOE/contractor personnel and/or the utilization of DOE facilities that is not directly funded by DOE appropriations (Defense Program Facilities and Infrastructure Assessment Report, Phase I, 2000).

Appendix 1. Acronyms and Abbreviations

ARRA	American Recovery and Reinvestment Act of 2009
ACI	asset condition index
AUI	asset utilization index
CPB	Contract Performance Baseline
DOE	U.S. Department of Energy
DOE O	DOE Order
DOI	U.S. Department of the Interior
EM	DOE Office of Environmental Management
FIMS	Facility Information Management System
FRPC	Federal Real Property Council
FY	fiscal year
GPP	general plant project
GSF	gross square feet
HVAC	heating, ventilating, and air conditioning
IGPP	institutional general plant project
LM	DOE EM Office of Legacy Management
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
OPAM	Office of Procurement and Acquisition Management
RAC	Remedial Action Contractor or Contract
RRM	residual radioactive material
TAC	Technical Assistance Contractor or Contract
TYSP	Ten-Year Site Plan
UMTRA	Uranium Mill Tailings Remedial Action
UMTRCA	Uranium Mill Tailings Radiation Control Act of 1978
USC	United States Code

Appendix 2.
OPAM FY2013 TYSP Review Guide (FY 2014-2023)

Appendix 2. OPAM FY2013 TYSP Review Guide (FY 2014-2023)

Office of Acquisition and Project Management	
FY 2014-2023 Ten Year Site Plan Review Guide	
FOR OAPM INTERNAL USE ONLY ONCE COMPLETED	
Program:	**Site:**
OAPM Reviewer:	**OAPM Review Date:**

Review Element	Y/N or NA	Comments/Concerns
Multi-Program Site Coordination		
If a multi-program site, are the PSO/CSO requirements addressed in the plan? If not, please identify missing approval.		
Site Overview		
Does the plan demonstrate alignment of real property assets with missions, core capabilities, and program requirements? Specifically, does the plan identify:		
– assigned missions, capabilities, and requirements		
– significant changes anticipated		
– new missions anticipated		
– expected or potential capability gaps		
– changes from the previous year's TYSP		
Is a useful site map(s) included?		
Site Facilities and Infrastructure Planning Requirements, Assumptions and Targets		
Does the plan reference the site's land use plan and provide a web link directly to the document?		
Does the plan identify the site's real property management strategy to meet mission and performance outcomes?		
Does the plan identify the process for completing space utilization surveys? If so, please summarize.		
Does the plan include the site's space standards or space management approach? If so, please summarize.		
Does the plan identify consolidation studies or efforts currently underway? If so, please summarize.		
Does the plan discuss application of DOE's space standard? If the plan offers a best practice, please summarize?		
Real Property Asset Management		
Overall, do the real property management strategies appear adequate? If not, please comment.		
Does the plan rely on FIMS snapshot data when reporting prior year performance?		
Does the plan account for all contributing funding sources?		

Appendix 2. OPAM FY2013 TYSP Review Guide (continued)

Review Element	Y/N or NA	Comments/Concerns
Does the plan predict the impact of planned projects and expenditures on real property asset performance measures? For example:		
– is the asset condition stable, improving, or declining?		
– is the site footprint stable, growing or shrinking?		
Does the plan identify and adequately address the following activities? If not, please comment.		
– condition assessments		
– construction (capital asset, GPP, IGPP)		
– real estate actions		
– plans for retaining existing leases or acquiring new leases		
– maintenance and repair		
– deferred maintenance backlog management or reduction		
– elimination of excess property		
– long term stewardship		
– plans to address unique site issues		
Do disposition plans described in the TYSP align with FIMS data? If not, please comment.		
Does the plan demonstrate a building footprint management strategy for compliant with the new construction 1-for-1 offset rule?		
Does the plan discuss maintenance management strategies that will result in improved energy and water use efficiency? If so, please summarize.		
Do any of the real property management strategies described demonstrate innovation or a best practice? If so, please summarize.		
Site Facilities and Infrastructure Investment		
Does the plan propose specific projects to fulfill identified mission/capability gaps or other needs?		
Does the plan include a prioritized list of proposed facility investments?		
Does the plan identify facility investment criteria? If so, please summarize.		
Does the site's FY2015 SRR-IPL IFI Crosscut submission generally support the TYSP? Including funding for:		
– capital asset projects		
– GPP/IGPPs		
– maintenance and repair		
– disposition		

Appendix 2. OPAM FY2013 TYSP Review Guide (continued)

Review Element	Y/N or NA	Comments/Concerns
Site Sustainability and Resource Conservation		
Does the plan address management of historic property preservation adequately?		
Does the plan address management of cultural resources adequately?		
Does the plan provide a summary of the site's progress towards real property related Sustainability goals?		
Project Management Coordination		
Does the plan accurately represent current and planned projects subject to DOE O 413.3B?		
Is the plan consistent with the mission need, critical decision documents, and current funding profile for DOE O 413.3B projects?		
If the plan proposes projects for Alternative Financing, do the projects fulfill an identified mission need/gap?		
Do projects with a TPC of less than $10M appear to be distinct and separate deliverables?		
For projects prior to CD-1, did the site consider the assets at other DOE sites to fulfill mission requirements/gaps?		
Are there noticeable gaps in planning created by the differences in the GPP and DOE O 413.3 thresholds?		
What additional information would improve understanding of the site's plan to use real property to fulfill mission requirements?		
Overall Comments		
Noted strengths.		
Noted weaknesses.		
Other comments or concerns, if any.		
OAPM recommended action.		
OAPM Use		
Please identify preferred formats or approaches demonstrated by the plan.		
Does the plan provide information or insight that could be used to improve Departmental real property management practices? If so, please identify.		